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     (FILE 'HOME' ENTERED AT 14:18:03 ON 17 JUL 2001)

     FILE 'REGISTRY' ENTERED AT 14:18:12 ON 17 JUL 2001
L1                STRUCTURE UPLOADED
L2             11 S L1
L3                STRUCTURE UPLOADED
L4              2 S L3
L5             41 S L3 SSS FULL

     FILE 'CAPLUS' ENTERED AT 14:21:36 ON 17 JUL 2001
L6            356 S L5
L7            110 S L6 AND PATENT/DT

     FILE 'REGISTRY' ENTERED AT 14:22:42 ON 17 JUL 2001
L8                STRUCTURE UPLOADED
L9              2 S L8  SUB=L5 SAMPLE
L10            31 S L8 SSS FULL SUB=L5

     FILE 'CAPLUS' ENTERED AT 14:30:28 ON 17 JUL 2001
L11           342 S L10
L12           102 S L11 AND PATENT/DT
L13        202338 S DIMETHYL
L14            66 S L12 NOT L13
L15            44 S L14 AND PY<1999

     FILE 'REGISTRY' ENTERED AT 14:36:15 ON 17 JUL 2001
                  E 4733-39-5/RN
L16             1 S E3
L17            31 S L11 NOT L15
L18            30 S L17 NOT L16

     FILE 'CAPLUS' ENTERED AT 14:38:56 ON 17 JUL 2001
L19           124 S L18
L20            98 S L19 NOT L15
L21             9 S L20 AND PATENT/DT

     FILE 'REGISTRY' ENTERED AT 14:42:31 ON 17 JUL 2001
L22               STRUCTURE UPLOADED
L23             0 S L22  SUB=L18 SAMPLE
L24            30 S L18 SUB=L5 SAMPLE
L25             0 S L22 SAMPLE SUB=L5
L26             5 S L22 FULL SUB=L5

     FILE 'CAPLUS' ENTERED AT 14:46:45 ON 17 JUL 2001
L27             2 S L26
L28             1 S L27 NOT L21

=> d l3
L3 HAS NO ANSWERS
L3                STR
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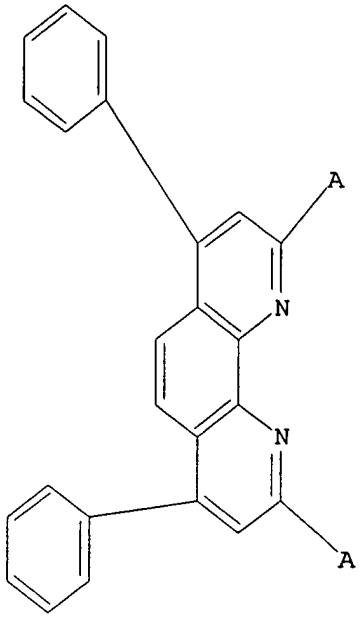
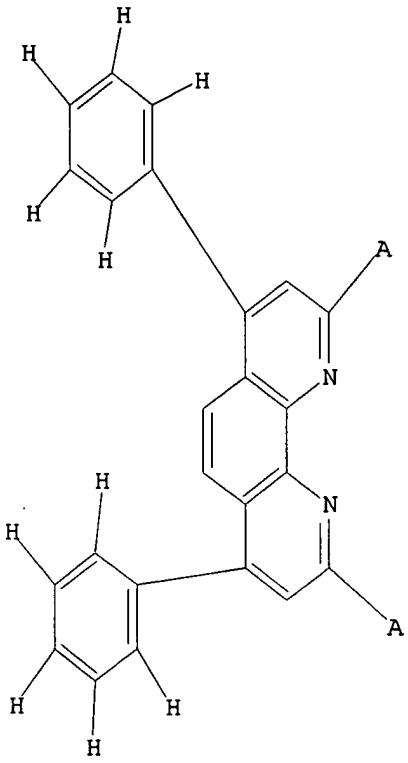


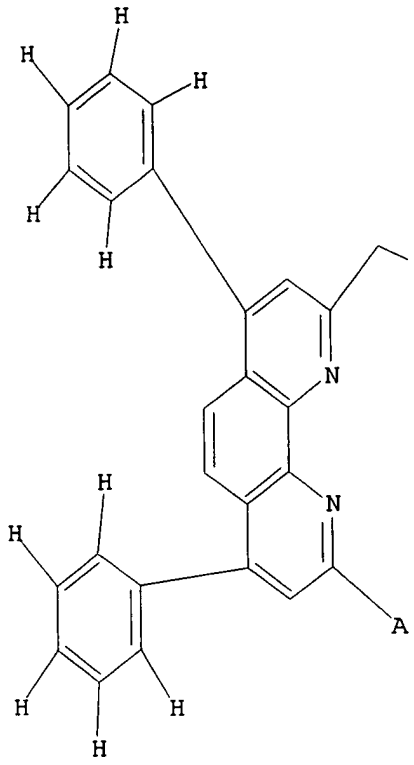
Structure attributes must be viewed using STN Express query preparation.

=> d l8
L8 HAS NO ANSWERS
L8 STR



Structure attributes must be viewed using STN Express query preparation.

=> d l22
L22 HAS NO ANSWERS
L22 STR


H
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H
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N
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H
H
H
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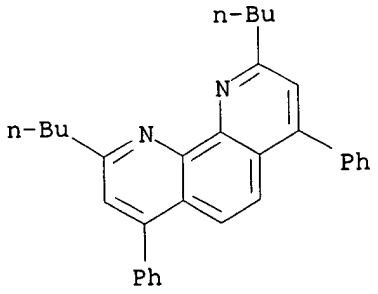
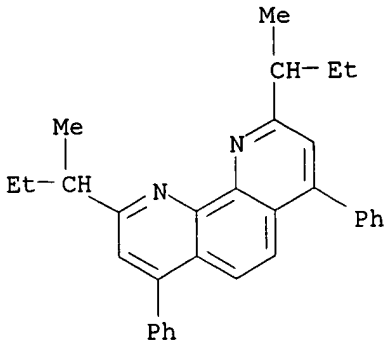
A

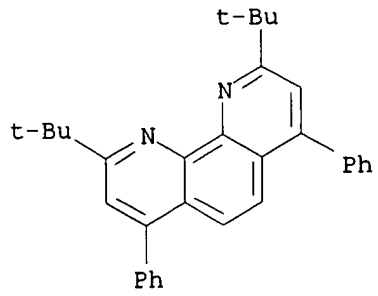
L28 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
AN 1994:22551 CAPLUS
DN 120:22551
TI Lithium ion-selective electrodes based on 1,10-phenanthroline derivatives
AU Sugihara, Hideki; Okada, Tatsuhiro; Hiratani, Kazuhisa
CS Natl. Inst. Mater. Chem. Res., Higashi, 305, Japan
SO Anal. Sci. (1993), 9(5), 593-7
CODEN: ANSCEN; ISSN: 0910-6340
DT Journal
LA English
AB The prepn. of 1,10-phenanthroline derivs. and 4,7-diphenyl-1,10-phenanthroline derivs. as neutral carriers for ion-selective electrodes and the properties of the title electrodes are described in detail. A log KLi,NaPot value of -3.1 was obtained for a Li+-selective PVC membrane electrode based on 2,9-dibutyl-1,10-phenanthroline. This value is superior to those reported so far. The electrodes also showed excellent selectivity coeffs. for Li+ relative to K+, Mg2+, and Ca2+. The effects of substituents at the 2- and 9-positions of the carriers on the selectivity are discussed.
IT **151862-66-7P 151862-67-8P 151862-68-9P**
151862-70-3P
RL: PREP (Preparation)
(prepn. and NMR and comparison of, as neutral carrier in lithium ion-selective electrode)
RN 151862-66-7 CAPLUS
CN 1,10-Phenanthroline, 2,9-dibutyl-4,7-diphenyl- (9CI) (CA INDEX NAME)



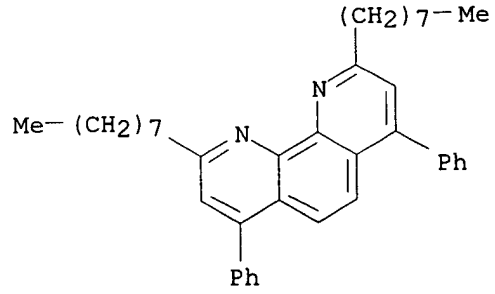
RN 151862-67-8 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(1-methylpropyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



RN 151862-68-9 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(1,1-dimethylethyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



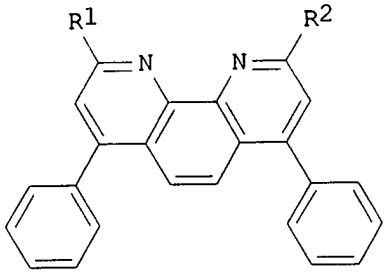
RN 151862-70-3 CAPLUS
CN 1,10-Phenanthroline, 2,9-dioctyl-4,7-diphenyl- (9CI) (CA INDEX NAME)



L21 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2001 ACS
AN 2001:338137 CAPLUS
DN 134:346297
TI Bathophenanthroline compound and process for preparing same
IN Shibanuma, Tetsuo; Kijima, Yasunori; Asai, Nobutoshi; Tamura, Shinichiro
PA Sony Corporation, Japan
SO Eur. Pat. Appl., 64 pp.
CODEN: EPXXDW
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1097980	A2	20010509	EP 2000-123668	20001030
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
			JP 1999-312071 A	19991102
JP 2001131174	A2	20010515	JP 1999-312071	19991102

OS MARPAT 134:346297
GI



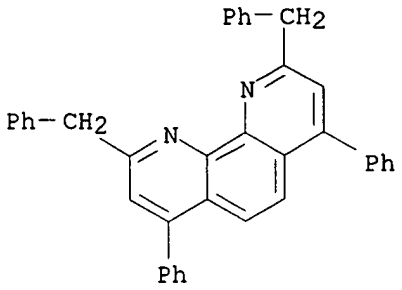
I

this appl'n

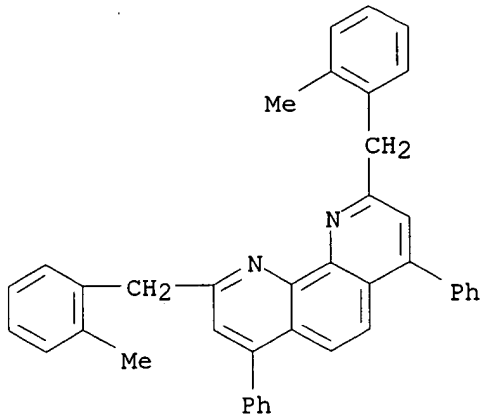
AB Bathophenanthroline compds. are described by the general formula I (R1 and R2 = independently selected linear, branched, or cyclic (un)satd. (un)substituted hydrocarbon groups provided that .gtoreq.1 of R1 and R2 has .gtoreq.2 carbon atoms; or R1 and R2 = independently selected (un)substituted aryl groups). Methods for prepg. the compds. are described which entail carrying out a nucleophilic substitution reaction between bathophenanthroline and an appropriate organolithium compd. The compds. may be used as org. layers (e.g., charge transport layers) in electroluminescent devices.

IT **338734-81-9P 338734-84-2P 338734-88-6P**
RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)
(bathophenanthroline derivs. and their prepn. and use in electroluminescent devices)

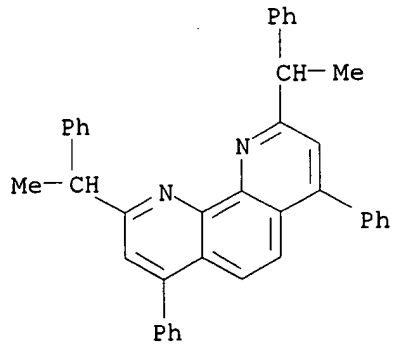
RN 338734-81-9 CAPLUS
CN 1,10-Phenanthroline, 4,7-diphenyl-2,9-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 338734-84-2 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis[(2-methylphenyl)methyl]-4,7-diphenyl- (9CI) (CA INDEX NAME)



RN 338734-88-6 CAPLUS
CN 1,10-Phenanthroline, 4,7-diphenyl-2,9-bis(1-phenylethyl)- (9CI) (CA INDEX NAME)



L21 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2001 ACS

AN 2000:790364 CAPLUS
DN 133:344631
TI Method of screening for drugs useful in treating Alzheimer's disease
IN Bush, Ashley I.; Huang, Xudong; Atwood, Craig S.; Tanzi, Rudolph E.
PA The General Hospital Corporation, USA
SO PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000066181	A1	20001109	WO 2000-US11715	20000501

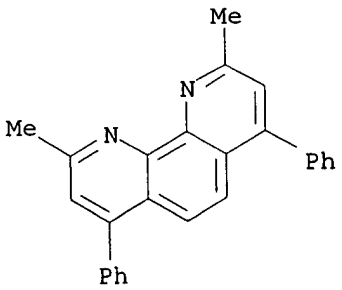
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 1999-131579 P 19990429

AB Methods are provided for identifying candidate pharmacol. agents to be used in the treatment and/or prevention of Alzheimer's disease and/or related pathol. conditions.

IT **73348-75-1**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Alzheimer's disease drug screening method)
RN 73348-75-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI)
(CA
INDEX NAME)



2 [D1—SO_3H]

RE.CNT 7
RE
(1) Abraham; US 5927283 A 1999 CAPLUS
(2) Atwood; Metal Ions in Biological Systems, Chapter 10 1999, V36, P309
CAPLUS

(3) Huang; Biochemistry 1999, V38(24), P7609 CAPLUS
(4) McKeon-O'Malley; Emerging Therapeutic Targets 1998, V2(2), P157 CAPLUS
(5) The General Hospital Corporation; WO 9607096 A1 1996 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

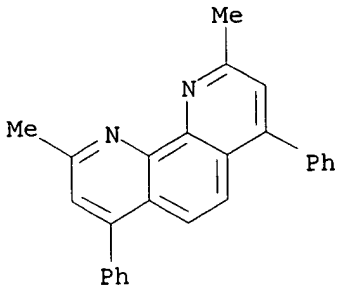
L21 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2001 ACS
AN 2000:58964 CAPLUS
DN 132:105023
TI A method for processing a sample to eliminate an interfering reducing substance
IN Yonehara, Satoshi
PA Kyoto Daiichi Kagaku Co., Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000023695	A2	20000125	JP 1998-195267	19980710

AB A method is described for processing a sample before measuring an objective substance so that reliable measurement values are obtained with a low cost. An influence by a coexisting reducing substance (e.g., glutathion (GSH), ascorbic acid (AsA)) is eliminated by contacting a sample at the pH higher than 9.0. with a pyridine compd. possessing a metal ion-chelating function. As a pyridine compd., bathophenanthrolinedisulfonic acid disodium salt (BPS), bathocuproinedisulfonic acid disodium salt (BCS), 3-(2-pyridyl)-5,6-bis(4-sulfophenyl)-1,2,4-triazine disodium salt (PDTS), 2-(5-bromo-2-pyridylazo)-5-(N-n-propyl)-N-(3-sulfopropyl)aminophenol (5-bromo-PAPS), or 2-(5-nitro-2-pyridylazo)-5-(N-n-propyl)-N-(3-sulfopropyl)aminophenol (nitro-PAPS) can be used. When hydrogen peroxide in a sample is to be measured, the sample is mixed with BPS at pH 9.5 to remove the influence by a reducing substance in the sample. Then, an oxido-redn. reaction is carried out by adding peroxidase and DA-64 to the sample. By measuring the color developed from DA-64, the amt. of hydrogen peroxide in the sample is detd. with more accuracy than by the conventional method. HbA1c in erythrocyte can be more accurately measured by this method than the conventional method, and its importance as a marker substance for diagnosing diabetes is increased.

IT **52698-84-7**, Bathocuproinedisulfonic acid disodium salt
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(method for processing sample to eliminate interfering reducing substance)

RN 52698-84-7 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

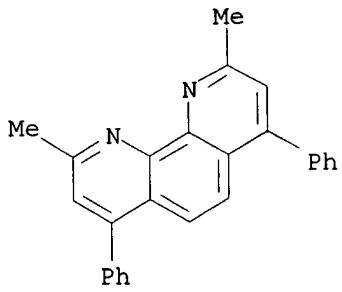
●2 Na

L21 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2001 ACS
AN 1999:265886 CAPLUS
DN 130:306608
TI Bathocuproine treatment of amyotrophic lateral sclerosis or other neurologic disease
IN Crow, John P.; Beckman, Joseph P.
PA UAB Research Foundation, USA
SO PCT Int. Appl., 110 pp.
CODEN: PIXXD2
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9918958	A1	19990422	WO 1998-US21780	19981015
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
			US 1997-62428	19971015
AU 9911893	A1	19990503	AU 1999-11893	19981015
			US 1997-62428	19971015
			WO 1998-US21780	19981015
US 6022879	A	20000208	US 1998-173105	19981015
			US 1997-62428	19971015

AB A method is provided for treating amyotrophic lateral sclerosis and other neurol. diseases by administering bathocuproine or a related analog. Also provided are pharmaceutical compns. of bathocuproine.
IT **73348-75-1**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bathocuproine treatment of amyotrophic lateral sclerosis or other neurol. disease)
RN 73348-75-1 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA
INDEX NAME)



2 [D1—SO_3H]

RE.CNT 3
RE
(1) Birnboim, H; Archives of Biochemistry and Biophysics 1992, V294(1), P17 CAPLUS
(2) Bowling, A; Journal of Neurochemistry 1993, V61(6), P2322 CAPLUS
(3) Goetz, M; Analytical Biochemistry 1984, V137, P230 CAPLUS

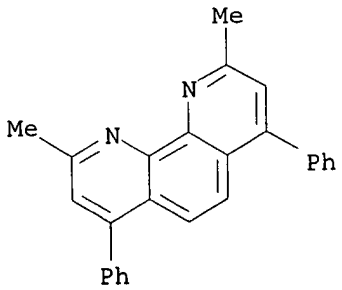
L21 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2001 ACS
AN 1999:246974 CAPLUS
DN 130:291573
TI Methods for screening drugs using a reducible substrate to predict inducibility of tardive dyskinesia
IN Tsai, Guochuan; Huang, Xudong; Bush, Ashley I.
PA The General Hospital Corporation, USA
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DT **Patent**
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9918432	A1	19990415	WO 1998-US20994	19981006
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				US 1997-60962 P	19971006
	AU 9896027	A1	19990427	AU 1998-96027	19981006
				US 1997-60962 P	19971006
				WO 1998-US20994W	19981006
	EP 1019716	A1	20000719	EP 1998-949779	19981006
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				US 1997-60962 P	19971006
				WO 1998-US20994W	19981006

AB The present invention provides screening methods for identifying compds. which induce tardive dyskinesia (TD) when administered to an animal. In particular, the methods involve assaying for intermediates and end products of reactions assocd. with candidate compd.-mediated redn. of reducible substrates. Also provided are high-throughput screening methods for detg. whether compds. induce TD when administered to an animal. Further, methods are provided for treating psychoses comprising testing antipsychotic drugs to identify those which will not induce TD when administered to an animal and administering one or more such drugs to a patient in need thereof. Conventional antipsychotics and some other drugs were tested by incubation with Cu(II) and Fe(III) in PBS (pH 7.4) at 37.degree. for 1 h in the presence of the indicators bathocuproine disulfonate and bathophenanthroline disulfonate. The formation of Cu(I)BC and Fe(II)-BP complexes were monitored at 483 and 536 nm, resp. The conventional antipsychotics selectively reduced copper and, to a much less degree, iron. A few of the non-antipsychotic psychotropic drugs reduced copper, but most did not reduce significant quantities of either C(II) or Fe(III).

IT **73348-75-1**
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(Cu(I) indicator; methods for screening drugs using reducible substrates to predict inducibility of tardive dyskinesia)

RN 73348-75-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

RE.CNT 7
RE
(1) Barton, A; Journal of Neurology Neurosurgery and Psychiatry 1990, V53, P671

MEDLINE
(3) Burki, H; Communications in Psychopharmacology 1979, V3, P7 MEDLINE
(4) Gunne, L; Psychopharmacology 1979, V63, P195 CAPLUS
(5) Lidsky; US 5602150 A 1997 CAPLUS
(7) Yokoyama, H; Free Radical Biology & Medicine 1998, V24(6), P1056 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

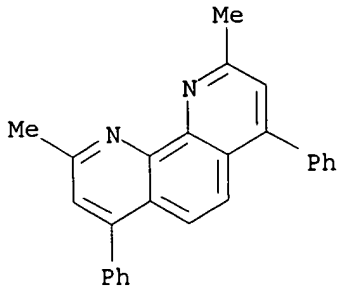
L21 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2001 ACS
AN 1997:700010 CAPLUS
DN 127:332983
TI Method and solution for bleaching of cellulose fibrous materials
IN Jaschinski, Thomas; Patt, Rudolf
PA Jaschinski, Thomas, Germany
SO Ger. Offen., 12 pp.
CODEN: GWXXBX
DT **Patent**
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19614587	A1	19971016	DE 1996-19614587	19960413
	CA 2251664	AA	19971023	CA 1997-2251664	19970414
				DE 1996-19614587A	19960413
	WO 9739179	A1	19971023	WO 1997-EP1865	19970414
	W: BR, CA, CN, JP, RU, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				DE 1996-19614587A	19960413
	EP 892865	A1	19990127	EP 1997-918134	19970414
	R: DE, ES, SE, FI				
				DE 1996-19614587A	19960413
				WO 1997-EP1865 W	19970414
	BR 9708561	A	20000104	BR 1997-8561	19970414
				DE 1996-19614587A	19960413
				WO 1997-EP1865 W	19970414
	US 6136041	A	20001024	US 1998-171229	19981230
				DE 1996-19614587A	19960413
				WO 1997-EP1865 W	19970414

AB Cellulose pulp is contacted with a (Cl-free) bleaching agent in a soln. contg. a heterocyclic N compd., esp. a phenanthroline (deriv.) and/or a bipyridine (deriv.), as activator. Thus, a prebleached (alkali-O) sprucewood kraft pulp with kappa no. 7.6 and ISO whiteness 42.3% was treated at 10% consistency for 60 min at 120.degree. with a bleach soln. contg. MgSO4 0.5, NaOH 1.5, H2O2 4.0, and 2,2'-bipyridine 0.2% (on oven-dry fiber) to give a product with kappa no. 3.1 and ISO whiteness 83.5%, compared with 75.8% in the absence of the bipyridine.

IT **52698-84-7**
RL: MOA (Modifier or additive use); USES (Uses)
(heterocyclic activators in peroxide bleaching of cellulose pulp)

RN 52698-84-7 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1−SO_3H]

●2 Na

L21 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2001 ACS
AN 1994:625858 CAPLUS
DN 121:225858
TI Composition for the semiquantitative determination of specific gravity of a test sample
IN Bauer, Robert
PA Miles Inc., USA
SO U.S., 17 pp.
CODEN: USXXAM
DT **Patent**
LA English
FAN.CNT 1

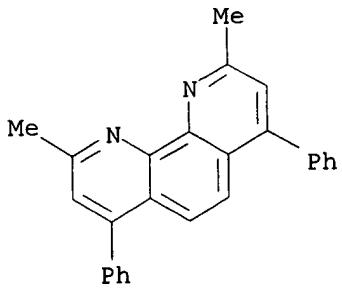
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5302531	A	19940412	US 1992-964873	19921022

PI US 5302531 A 19940412 US 1992-964873 19921022

AB A method, compn. and test device for the semi-quant. detn. of sp. gr. of a test sample are disclosed. The method utilizes a reagent compn. capable of producing a detectable and measurable response that correlates to the concn. of cations, and therefore the sp. gr., of the test sample. The reagent compn., comprises: (a) a complexing agent, like a polyelectrolyte, an ion exchange material or a chelating agent, such as a copolymer of maleic acid and Me vinyl ether; (b) a polyvalent metal ion having a valence of at least two, like ferrous ion or cobaltous ion; (c) an indicator capable of interacting with the polyvalent metal ion to provide a color transition, like calmagite or gallocyanine; and (d) a suitable carrier. The reagent compn. is used in a wet phase sp. gr. assay or is incorporated into a carrier matrix, like filter paper, to provide a test pad useful in a dry phase sp. gr. assay of a test sample, such as urine.

IT **73348-75-1**
RL: BIOL (Biological study)
(as indicator, compn. contg., for semiquant. detn. of sp. gr. of urine)

RN 73348-75-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA
INDEX NAME)



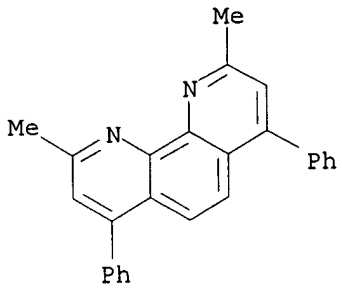
2 [D1—SO_3H]

L21 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2001 ACS
AN 1994:529419 CAPLUS
DN 121:129419
TI Method, composition and device for the semiquantitative determination of specific gravity of a test sample
IN Bauer, Robert; Cattell, John A.
PA Miles Inc., USA
SO U.S., 16 pp. Cont. of U.S. Ser. No. 964,876, abandoned.
CODEN: USXXAM
DT **Patent**
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5320969	A	19940614	US 1993-143530	19931027
				US 1992-964876	19921022

AB A method, compn. and test device for the semiquant. detn. of sp. gr. of a test sample are disclosed. The method utilizes a reagent compn. capable of producing a detectable and measurable response that correlates to the concn. of cations, and therefore the sp. gr., of the test sample. The reagent compn. comprises:(a) a polyvalent metal ion having a valence of at least two, like mercuric ion or calcium ion; (b) an indicator capable of interacting with the polyvalent metal ion to provide a polyvalent metal ion-indicator complex having a first color; (c) a buffer; and (d) a suitable carrier. The reagent compn. is used in a wet phase sp. gr. assay or is incorporated into a carrier matrix, like filter paper, to provide a test pad useful in a dry phase sp. gr. assay of a test sample, such as urine.
IT **73348-75-1**
RL: ANST (Analytical study)

(as indicator, for semiquant. detn. of sp. gr. of test sample)
RN 73348-75-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

L21 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2001 ACS
AN 1990:493312 CAPLUS
DN 113:93312
TI Photoactivated insecticides containing .delta.-aminolevulinic acid and/or its inducers and/or conversion enhancers
IN Rebeiz, Constantin A.; Rebeiz, Carole C.; Juvik, John A.
PA University of Illinois, USA
SO Eur. Pat. Appl., 38 pp.
CODEN: EPXXDW
DT **Patent**
LA English
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 326835	A1	19890809	EP 1989-100605	19890113
	EP 326835	B1	19930811		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
				US 1988-144883 A	19880113
	IL 88867	A1	19940530	IL 1989-88867	19890103
				US 1988-144883 A	19880113
	ZA 8900057	A	19900131	ZA 1989-57	19890104
				US 1988-144883 A	19880113
	US 5200427	A	19930406	US 1989-294132	19890109
				US 1984-634932 B2	19840727
				US 1985-754092 B1	19850715
				US 1986-895529 A2	19860811
				US 1988-144883 B2	19880113
	NO 8900138	A	19890714	NO 1989-138	19890112
				US 1988-144883 A	19880113
	DK 8900138	A	19890714	DK 1989-138	19890113
				US 1988-144883 A	19880113

FI 8900177	A	19890714	FI 1989-177 19890113
			US 1988-144883 A 19880113
AU 8928498	A1	19890720	AU 1989-28498 19890113
AU 626533	B2	19920806	
			US 1988-144883 A 19880113
BR 8900169	A	19890912	BR 1989-169 19890113
			US 1988-144883 A 19880113
CN 1036688	A	19891101	CN 1989-101403 19890113
			US 1988-144883 A 19880113
HU 50179	A2	19891228	HU 1989-131 19890113
			US 1988-144883 A 19880113
JP 02138201	A2	19900528	JP 1989-7533 19890113
JP 2866095	B2	19990308	
			US 1988-144883 A 19880113
DD 283317	A5	19901010	DD 1989-325032 19890113
			US 1988-144883 A 19880113
AT 92712	E	19930815	AT 1989-100605 19890113
			US 1988-144883 A 19880113
			EP 1989-100605 A 19890113
CA 1338855	A1	19970121	CA 1989-588241 19890113
			US 1988-144883 A 19880113
US 5300526	A	19940405	US 1991-795367 19911120
			US 1984-634932 B219840727
			US 1985-754092 B119850715
			US 1986-895529 A219860811
			US 1988-144883 B219880113
			US 1989-294132 A319890109

PATENT FAMILY INFORMATION:

FAN 1986:163743

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8600785	A1	19860213	WO 1985-US1356	19850717
	W: AU, BR, HU, JP, SU				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
				US 1984-634932 A	19840727
				US 1985-754092 A	19850715
	AU 8546353	A1	19860225	AU 1985-46353	19850717
	AU 595162	B2	19900329		
				US 1984-634932 A	19840727
				US 1985-754092 A	19850715
				WO 1985-US1356 A	19850717
	EP 190203	A1	19860813	EP 1985-903637	19850717
	EP 190203	B1	19920916		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
				US 1984-634932 A	19840727
				US 1985-754092 A	19850715
	JP 61502814	T2	19861204	JP 1985-503258	19850717
	JP 07042204	B4	19950510		
				US 1984-634932 A	19840727
				US 1985-754092 A	19850715
				WO 1985-US1356 W	19850717
	EP 331211	A2	19890906	EP 1989-106579	19850717
	EP 331211	A3	19891123		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
				US 1984-634932 A	19840727
				US 1985-754092 A	19850715

				EP 1985-903637 P 19850717
	AT 80520	E	19921015	AT 1985-903637 19850717
				US 1984-634932 A 19840727
				US 1985-754092 A 19850715
				EP 1985-903637 A 19850717
				WO 1985-US1356 A 19850717
	ZA 8505561	A	19860326	ZA 1985-5561 19850723
				US 1984-634932 A 19840727
	CA 1266991	A1	19900327	CA 1985-487622 19850726
				US 1984-634932 A 19840727
				US 1985-754092 A 19850715
	US 5200427	A	19930406	US 1989-294132 19890109
				US 1984-634932 B219840727
				US 1985-754092 B119850715
				US 1986-895529 A219860811
				US 1988-144883 B219880113
	US 5300526	A	19940405	US 1991-795367 19911120
				US 1984-634932 B219840727
				US 1985-754092 B119850715
				US 1986-895529 A219860811
				US 1988-144883 B219880113
				US 1989-294132 A319890109

FAN 1992:230222

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9116820	A1	19911114	WO 1991-US3015	19910502
	W: CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
				US 1990-521119 A 19900503	
				US 1990-615413 A 19901119	
	US 5163990	A	19921117	US 1990-521119 19900503	
				US 1984-634932 B219840727	
				US 1985-754092 B119850715	
				US 1986-895529 A219860811	
	US 5242892	A	19930907	US 1990-615413 19901119	
				US 1984-634932 B219840727	
				US 1985-754092 B119850715	
				US 1986-895529 A219860811	
				US 1990-521119 A219900503	
	EP 527186	A1	19930217	EP 1991-909022	19910502
	R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL				
				US 1990-521119 A 19900503	
				US 1990-615413 A 19901119	
				WO 1991-US3015 W 19910502	
	JP 06500989	T2	19940127	JP 1991-508902	19910502
				US 1990-521119 A 19900503	
				US 1990-615413 A 19901119	
				WO 1991-US3015 W 19910502	

FAN 1994:127807

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5242892	A	19930907	US 1990-615413	19901119
				US 1984-634932 B219840727	
				US 1985-754092 B119850715	
				US 1986-895529 A219860811	
				US 1990-521119 A219900503	

EP 331211	A2	19890906	EP 1989-106579 19850717
EP 331211	A3	19891123	
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE			
			US 1984-634932 A 19840727
			US 1985-754092 A 19850715
			EP 1985-903637 P 19850717
ZA 8505561	A	19860326	ZA 1985-5561 19850723
			US 1984-634932 A 19840727
US 5127938	A	19920707	US 1986-895529 19860811
			US 1984-634932 B219840727
			US 1985-754092 B119850715
US 5200427	A	19930406	US 1989-294132 19890109
			US 1984-634932 B219840727
			US 1985-754092 B119850715
			US 1986-895529 A219860811
			US 1988-144883 B219880113
US 5163990	A	19921117	US 1990-521119 19900503
			US 1984-634932 B219840727
			US 1985-754092 B119850715
			US 1986-895529 A219860811
CA 2080140	AA	19911104	CA 1991-2080140 19910502
			US 1990-521119 A 19900503
			US 1990-615413 A 19901119
WO 9116820	A1	19911114	WO 1991-US3015 19910502
W: CA, JP, KR			
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE			
			US 1990-521119 A 19900503
			US 1990-615413 A 19901119
EP 527186	A1	19930217	EP 1991-909022 19910502
R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL			
			US 1990-521119 A 19900503
			US 1990-615413 A 19901119
			WO 1991-US3015 W 19910502
JP 06500989	T2	19940127	JP 1991-508902 19910502
			US 1990-521119 A 19900503
			US 1990-615413 A 19901119
			WO 1991-US3015 W 19910502
JP 2001151614	A2	20010605	JP 2000-226123 19910502
			US 1990-521119 A 19900503
			US 1990-615413 A 19901119
			JP 1991-508902 A319910502
US 5286708	A	19940215	US 1991-773030 19911008
			US 1984-634932 B219840727
			US 1985-754092 B119850715
			US 1986-895529 A319860811
US 5300526	A	19940405	US 1991-795367 19911120
			US 1984-634932 B219840727
			US 1985-754092 B119850715
			US 1986-895529 A219860811
			US 1988-144883 B219880113
			US 1989-294132 A319890109
US 5321001	A	19940614	US 1992-915896 19920717
			US 1984-634932 B219840727
			US 1985-754092 B119850715
			US 1986-895529 A219860811
			US 1990-521119 A319900503

AB The title insecticides comprise .delta.-aminolevulinic acid (I), I inducers, and/or enhancers of I conversion to photodynamic tetrapyrroles, toxic to the insect, in the insect body. A mixt. contg. 40 mM I and 30 mM 2,2'-dipyridyl soln. was sprayed on Trichoplusia ni (cabbage looper) larvae, which were incubated in the dark for 17 h and then exposed to a 14 h light/10 h dark photoperiod for several cycles to produce the photodynamic effect. Larval death was detd. at the end of the 3rd cycle, i.e. 89 h after treatment with I. The result was 80% death, vs. 3% for control larvae sprayed only with the solvent.

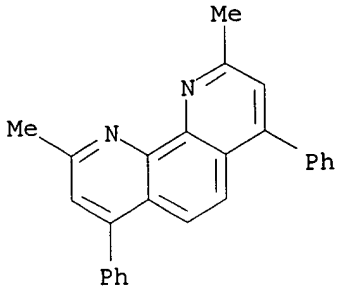
IT **126840-94-6**
RL: BIOL (Biological study)
(photoactivated insecticide contg.)

RN 126840-94-6 CAPLUS

CN Pentanoic acid, 5-amino-4-oxo-, mixt. with 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline (9CI) (CA INDEX NAME)

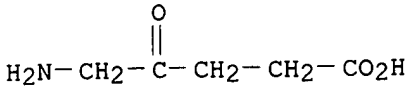
CM 1

CRN 4733-39-5
CMF C26 H20 N2



CM 2

CRN 106-60-5
CMF C5 H9 N O3



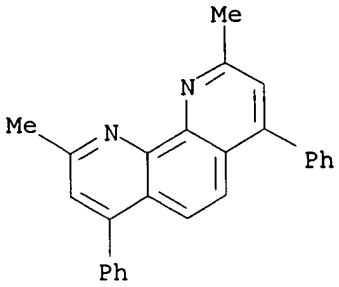
L15 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1998:789026 CAPLUS
DN 130:20568
TI Treating asthma by preventing and/or accommodating for S-nitrosothiol breakdown
IN Gaston, Benjamin; Stamler, Jonathan S.; Griffith, Owen W.
PA Duke University, USA; The Medical College of Wisconsin Research Foundation, Inc.; University of Virginia Patent Foundation
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9852580	A1	19981126	WO 1998-US8978	19980507 <--
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
			US 1997-47336	19970521
			US 1998-81740	19980415
AU 9872801	A1	19981211	AU 1998-72801	19980507 <--
			US 1997-47336	19970521
			US 1998-81470	19980415
			WO 1998-US8978	19980507

AB Asthma is ameliorated and mild or moderate asthma is prevented from progressing to more severe asthma by administering agents which prevent and/or accommodate for S-nitrosothiol breakdown, e.g. inhibitors of .gamma.-glutamyl transpeptidase or xanthine oxidase, chelators of copper and/or heme or non-heme iron, and NO donors. Thus, administration of a 10 mM soln. of bathocuproine disulfonate via inhalation as an aerosol at a dose of 0.01 mL/kg improve symptoms in a 24-yr old woman with severe asthma with symptoms of dyspnea on exertion, cough, and prolonged expiration. The method reduces requirements for systemic corticosteroids for the treatment of severe asthma.

IT **73348-75-1**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitors of S-nitrosothiol breakdown and NO donors for asthma treatment)

RN 73348-75-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA INDEX NAME)



2 [D1−SO3H]

RE.CNT 2
RE
(1) Stamler; US 5380758 A 1995 CAPLUS
(2) Stamler; US 5574068 A 1996 CAPLUS

L15 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1998:621114 CAPLUS
DN 129:239902
TI Identification of agents for use in the treatment of Alzheimer's disease, and methods and compositions for treatment of conditions caused by amyloidosis and/or A.beta.-mediated ROS formation
IN Bush, Ashley I.; Huang, Xudong; Atwood, Craig S.; Tanzi, Rudolph E.
PA The General Hospital Corp., USA
SO PCT Int. Appl., 198 pp.
CODEN: PIXXD2
DT **Patent**
LA English
FAN.CNT 1

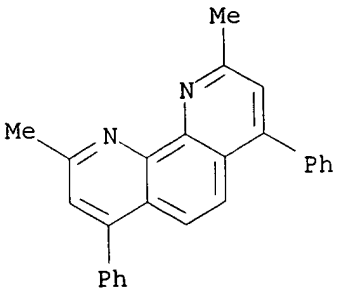
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9840071	A1	19980917	WO 1998-US4683	19980311 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				US 1997-816122 A	19970311
	EP 1007048	A1	20000614	EP 1998-911551	19980311
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				US 1997-816122 A	19970311
				WO 1998-US4683 W	19980311

AB The invention relates to the identification of pharmacol. agents to be used in the treatment of Alzheimer's disease and related pathol. conditions. Methods and compns. for treatment of conditions caused by amyloidosis, A.beta.-mediated ROS formation, or both, such as Alzheimer's

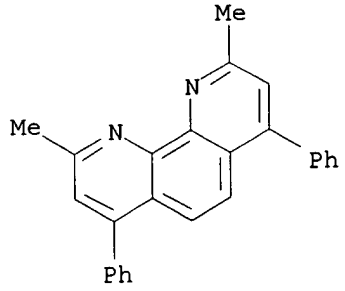
disease, are disclosed.

IT **4733-39-5**, Bathocuproine **4733-39-5D**, Bathocuproine, derivs.
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(identification of agents for use in the treatment of Alzheimer's disease, and methods and compns. for treatment of conditions caused by amyloidosis and/or A.beta.-mediated ROS formation)

RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 3 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1998:555864 CAPLUS
DN 129:183160
TI Apparatus and method for copper determination in copper monochloride etching solution
IN Ueda, Tatsuji; Kawashima, Katsumasa; Tanaka, Satoshi; Fujii, Yoshihiro
PA Toppan Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

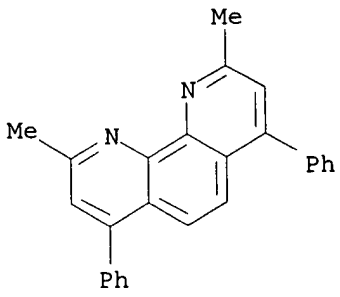
PI	JP 10227742	A2	19980825	JP 1997-28757	19970213 <--

AB The title method involves the following steps; (1) sampling a CuCl etching soln. for a Cu material in an etching app., (2) stepwise dilg. with HCl and pure water, (3) mixing the soln. with hydroxylamine hydrochloride, pure water, Na bathocuproine sulfonate, and AcONa, (4) measuring absorbance of the mixt. at .apprx.480 nm, and (5) calcg. Cu ion concn. based on a working curve. The app. for the method is also claimed. The app. and method is useful for manuf. of semiconductor integrated circuits, etc. Cu concn. was automatically detd. with high selectivity.

IT **52698-84-7**, Sodium bathocuproine disulfonate
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(copper detn. in copper monochloride etching soln. for manuf. of semiconductor integrated circuit)

RN 52698-84-7 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

●2 Na

L15 ANSWER 4 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1998:484935 CAPLUS

DN 129:121658

TI Methods and compositions for identification of autoantigens

IN Rosen, Antony; Casciola-Rosen, Livia

PA Johns Hopkins University, USA

SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2

DT **Patent**

LA English

FAN.CNT 1

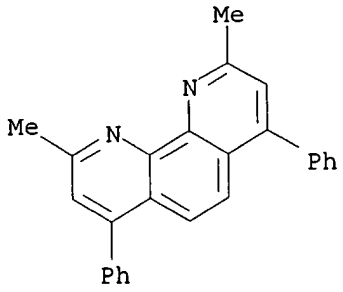
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 9829109 A1 19980709 WO 1997-US24100 19971230 <--
W: CA, JP, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
US 1996-34098 19961230

AB Autoantigens with immunocryptic sites may be cleaved at particular sites in the presence of metals such as iron or copper and reactive oxygen species to produce antigenic protein fragments which are useful in diagnosing autoimmune diseases. Substances that interfere with fragmentation process may be used to treat autoimmune diseases and the fragments may be used to tolerize patients. Non-enzymic proteolysis according to the invention has wide applicability as a biochem. tool. Autoimmune diseases can be treated by administering proteolytic inhibitors such as desterroxamine, D-penicillamine, EDTA, and bathocuproine disulfonate, or by giving autogenic and immunogenic fragments produced by metal-catalyzed oxidative proteolysis of autoantigens (such as topoisomerase, RNA polymerase, U1 small nuclear ribonucleoprotein, etc.). Antibodies specific for autoantigen fragments can be used for identifying the presence of autoantigens and in diagnosing autoimmune diseases.

IT **73348-75-1**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of proteolytic fragments of autoantigens and autoantigen fragment-specific antibodies for the diagnosis and treatment of autoimmune diseases)

RN 73348-75-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA INDEX NAME)



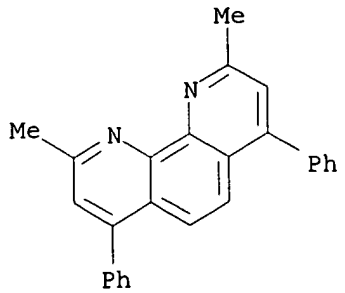
2 [D1—SO3H]

L15 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1998:175846 CAPLUS
DN 128:225052
TI Magnetic recording medium and cleaning tape
IN Kamei, Takahiro; Kishii, Noriyuki; Suzuki, Atsuko; Watanabe, Haruo; Kobayashi, Ken; Kurihara, Kenichi; Miyazaki, Takahiro

PA Sony Corp., Japan
SO Eur. Pat. Appl., 92 pp.
CODEN: EPXXDW
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 827135	A1	19980304	EP 1997-114764	19970826 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
			JP 1996-231058 A	19960830
			JP 1996-233331 A	19960903
			JP 1996-292094 A	19961101
			JP 1996-294168 A	19961106
			JP 1997-3994 A	19970113
US 6143413	A	20001107	US 1997-921220	19970827
			JP 1996-231058 A	19960830
			JP 1996-233331 A	19960903
			JP 1996-292094 A	19961101
			JP 1996-294168 A	19961106
			JP 1997-3994 A	19970113

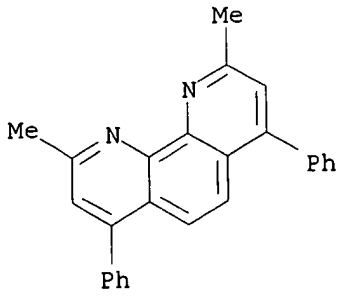
OS MARPAT 128:225052
AB This invention provides a magnetic recording medium which, even when the friction time is prolonged or the scan speed is increased to achieve a long time recording, leaves no burnt matter on a magnetic head, reduces spacing loss, and prevents an increase in error rate. This invention also provides a cleaning tape which, without causing any wear or damage to a magnetic head, will remove burnt matter adhering to the head. The magnetic recording medium and cleaning tape comprise an anti-seize agent contg. a compd. with a pyridine skeleton and .gtoreq.2 ligand sites or a diketone compd. The anti-seize agent may contain a titanate coupling agent, carboxylic acid, and P-contg. compd. in addn. to the above compd.
IT **4733-39-5**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(magnetic recording medium and cleaning tape contg.)
RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1998:119153 CAPLUS
DN 128:147327
TI bromoacetylElectroluminescent device
IN Kijima, Yasunori
PA Sony Corp., Japan
SO Eur. Pat. Appl., 41 pp.
CODEN: EPXXDW
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 818943	A2	19980114	EP 1997-111212	19970703 <--
EP 818943	A3	19980715		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
			JP 1996-199789	19960709
JP 10079297	A2	19980324	JP 1997-126961	19970516 <--
			JP 1996-199789	19960709
US 6010796	A	20000104	US 1997-889179	19970707
			JP 1996-199789	19960709
			JP 1997-126961	19970516

OS MARPAT 128:147327
AB Single heterostructure org. electroluminescent devices are described which
are provided with exciton generation promoting layers formed over the light-emitting regions (e.g., between a hole transport layer and an electron transport layer). Application to color displays is indicated.
IT **4733-39-5**, Bathocuproin
RL: DEV (Device component use); USES (Uses)
(electroluminescent devices with exciton generation promoting layers)
RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 7 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1997:204268 CAPLUS
DN 126:183510
TI Reagent kit for quantitative determination of proteins and peptides
IN Strobel, Oliver; Strobel, Edith; Von der Eltz, Herbert
PA Boehringer Mannheim Gmbh, Germany

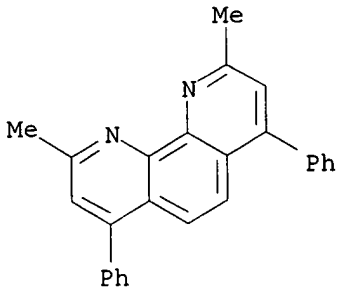
SO Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DT **Patent**
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 760483	A2	19970305	EP 1996-113710	19960827 <--
EP 760483	A3	19980715		
R: DE, ES, FR, GB, IT				
			DE 1995-29513801	19950828
			DE 1995-29514396	19950907
JP 09166598	A2	19970624	JP 1996-226847	19960828 <--
JP 2848487	B2	19990120		
			DE 1995-29513801	19950828
			DE 1995-29514396	19950907

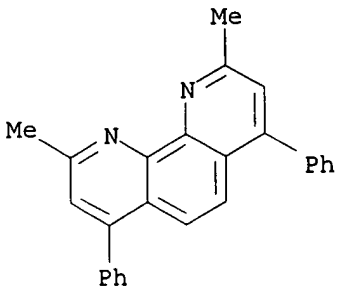
AB A reagent kit for the quant. spectrophotometric detn. of proteins and/or peptides includes Reagent A, which contains 0.7-2 mM Cu2+ ions and 2-4 mM tartrate in alk. soln., and Reagent B, which contains 1-1.5 mM ascorbic acid and 0.5-0.8 mM bathocuproine. The vol. ratio of Reagent A to Reagent B is 1:8-1:12, and the total vol. of Reagent A and Reagent B is 750-3000 .mu.L. These reagents show smaller protein-to-protein variability than other known reagents, and so protein mixts. can be measured with higher accuracy. Other advantages of these reagents are: short assay time, good reagent stability, excellent sensitivity, broad linear range, and tolerance against possible interferences.

IT **4733-39-5**, Bathocuproine **52698-84-7**, Bathocuproine disulfonic acid disodium salt
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(reagent kit for quant. spectrophotometric detn. of proteins and peptides)

RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 52698-84-7 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1—SO3H]

●2 Na

L15 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1997:132972 CAPLUS
DN 126:152052
TI Zinc(II) complexes and methods related thereto
IN Pallenberg, Alexander J.
PA Procyte Corporation, USA; Pallenberg, Alexander J.
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI WO 9701559	A1	19970116	WO 1996-US11123	19960628	<--
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG					
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA					
			US 1995-496810	19950629	
US 5637311	A	19970610	US 1995-496810	19950629	<--
AU 9663438	A1	19970130	AU 1996-63438	19960628	<--
			US 1995-496810	19950629	
			WO 1996-US11123	19960628	

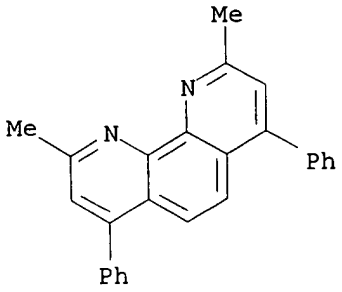
AB Zinc(II) complexes and methods relating thereto are disclosed. The zinc(II) complexes comprise a zinc(II) ion complexed by a multi-dentate ligand. Methods of this invention include the use of the zinc(II) complexes as anti-viral agents and/or as antiinflammatory agents. Methods of this invention also include inhibition of viral infection, as well as inhibiting transmission of sexually transmitted diseased. Exemplary zinc(II) complexes include zinc(II):neocuproine (1:2) and zinc(II):bathocuproine disulfonic acid (1:2), including pharmaceutically

acceptable salts thereof. Thus, [ZnL2(NO3)](NO3).cntdot.H2O (L = neocuproine) was prepd. in 91% yield by the reaction of neocuproine hydrate with zinc nitrate hydrate in methanol. The crystal structure of [ZnL2(NO3)](NO3).cntdot.EtOH was detd. The zinc complex with bathocuproine disulfonic acid prevents transfer of HIV-1 from H9 cells to ME180 cells in vitro with EC50 of 5 .mu.M and CC50 (cytotoxicity) of >5000 .mu.M.

IT **52698-84-7**, Disodium bathocuproinedisulfonate
RL: RCT (Reactant)
(for prepn. of zinc complex as antiviral and antiinflammatory agent)

RN 52698-84-7 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



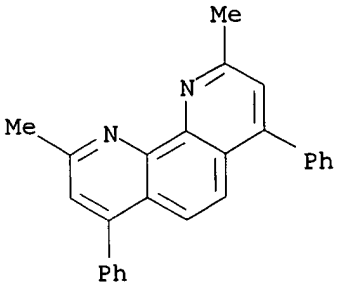
2 [D1—SO3H]

●2 Na

IT **73348-75-1DP**, Bathocuproinedisulfonic acid, zinc complex
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. as antiviral and antiinflammatory agent)

RN 73348-75-1 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

L15 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1997:121345 CAPLUS
DN 126:126927
TI Stable copper(I) complexes as active therapeutic substances
IN Pallenberg, Alexander J.; Branca, Andrew; Marschner, Thomas M.; Patt, Leonard M.
PA Procyte Corporation, USA; Pallenberg, Alexander J.; Branca, Andrew; Marschner, Thomas M.; Patt, Leonard M.
SO PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI WO 9639144	A1	19961212	WO 1996-US10122	19960606	<--
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG					
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA					
			US 1995-468645	19950606	
AU 9662748	A1	19961224	AU 1996-62748	19960606	<--
			US 1995-468645	19950606	
			WO 1996-US10122	19960606	

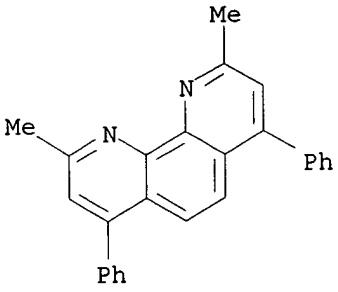
AB Stable Copper(I) complexes and methods relating thereto are disclosed. The stable Copper (I) complexes comprise a Copper(I) ion complexed by a multi-dentate ligand which favors the +1 oxidn. state for copper. The complexes may be used as wound healing agents, anti-oxidative agents, anti-inflammatory agents, lipid modulating agents, signal transduction modulating agents, hair growth agents, and antiviral agents. Uses of this invention also include inhibition of viral infection, as well as inhibiting transmission of sexually transmitted diseases. The stable Copper(I) complexes of the invention include neocuproine Copper(I) and bathocuproine disulfonic acid Copper(I). Prepn. of copper (I) neocuproine

is described, as are inhibitory effects of the complexes of the invention against e.g a variety of viruses.

IT **73348-75-1**, Bathocuproine disulfonic acid
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stable copper(I) complexes as active therapeutic substances, and activity of free ligand)

RN 73348-75-1 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

L15 ANSWER 10 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1996:754393 CAPLUS

DN 126:102570

TI Reporter gene methods for identification of compounds that modulate transcription of genes associated with cardiovascular disease

IN Foulkes, J. Gordon; Liechtfried, Franz E.; Pieler, Christian; Stephenson, John R.; Case, Casey C.

PA Oncogene Science, Inc., USA

SO U.S., 93 pp. Cont.-in-part of U.S. Ser. No. 555,196, abandoned.
CODEN: USXXAM

DT **Patent**

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 5580722	A	19961203	US 1992-832905	19920207	<--
				US 1989-382712 B219890718		
				US 1990-555196 B219900718		
	US 6203976	B1	20010320	US 1994-255236	19940607	
				US 1989-382712 B219890718		
				US 1990-555196 B219900718		
				US 1991-644233 B119910118		
	US 5665543	A	19970909	US 1994-267834	19940628	<--
				US 1989-382712 B219890718		
				US 1990-555196 B119900718		

			US 1993-13343	B119930204
			US 1993-134215	B119931008
US 6165712	A	20001226	US 1995-463691	19950605
			US 1989-382712	B219890718
			US 1990-555196	B219900718
			US 1991-644233	B119910118
			US 1994-255236	A319940607
US 5976793	A	19991102	US 1996-683455	19960718
			US 1989-382712	B119890718
			US 1990-555196	B119900718
			US 1993-13343	B119930204
			US 1993-134215	B119931008
			US 1994-267834	A119940628
US 5846720	A	19981208	US 1996-700757	19960815 <--
			US 1989-382712	B219890718
			US 1990-555196	B219900718
			US 1992-832905	A119920207
US 5863733	A	19990126	US 1997-779230	19970106
			US 1989-382712	B219890718
			US 1990-555196	A119900718
			US 1993-13343	B119930204
			US 1993-134215	B119931008
			US 1994-267834	A119940628
US 6136779	A	20001024	US 1997-778754	19970106
			US 1989-382712	B119890718
			US 1990-555196	B119900718
			US 1993-13343	B119930204
			US 1993-134215	B119931008
			US 1994-267834	A119940628

PATENT FAMILY INFORMATION:

FAN 1991:529160

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9101379	A1	19910207	WO 1990-US4021	19900718
	W: AU, CA, FI, HU, JP, KR, NO, SU				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
				US 1989-382712 A	19890718
	CA 2063822	AA	19910119	CA 1990-2063822	19900718
				US 1989-382712 A	19890718
	AU 9061400	A1	19910222	AU 1990-61400	19900718
	AU 660405	B2	19950629		
				US 1989-382712 A	19890718
				WO 1990-US4021 A	19900718
	EP 483249	A1	19920506	EP 1990-911558	19900718
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
				US 1989-382712 A	19890718
				WO 1990-US4021 W	19900718
	JP 04506902	T2	19921203	JP 1990-511061	19900718
				US 1989-382712 A	19890718
				WO 1990-US4021 W	19900718
	US 6203976	B1	20010320	US 1994-255236	19940607
				US 1989-382712	B219890718
				US 1990-555196	B219900718
				US 1991-644233	B119910118
	US 5665543	A	19970909	US 1994-267834	19940628
				US 1989-382712	B219890718

			US 1990-555196 B119900718
			US 1993-13343 B119930204
			US 1993-134215 B119931008
US 6165712	A	20001226	US 1995-463691 19950605
			US 1989-382712 B219890718
			US 1990-555196 B219900718
			US 1991-644233 B119910118
			US 1994-255236 A319940607
US 5976793	A	19991102	US 1996-683455 19960718
			US 1989-382712 B119890718
			US 1990-555196 B119900718
			US 1993-13343 B119930204
			US 1993-134215 B119931008
			US 1994-267834 A119940628
US 5863733	A	19990126	US 1997-779230 19970106
			US 1989-382712 B219890718
			US 1990-555196 A119900718
			US 1993-13343 B119930204
			US 1993-134215 B119931008
			US 1994-267834 A119940628
US 6136779	A	20001024	US 1997-778754 19970106
			US 1989-382712 B119890718
			US 1990-555196 B119900718
			US 1993-13343 B119930204
			US 1993-134215 B119931008
			US 1994-267834 A119940628

FAN 1993:33948

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9212635	A1	19920806	WO 1992-US424	19920117
W: AU, CA, FI, HU, JP, KR, NO, RU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
			US 1991-644233 A219910118	
AU 9213472	A1	19920827	AU 1992-13472	19920117
			US 1991-644233 A 19910118	
			WO 1992-US424 A 19920117	
US 6203976	B1	20010320	US 1994-255236	19940607
			US 1989-382712 B219890718	
			US 1990-555196 B219900718	
			US 1991-644233 B119910118	
US 6165712	A	20001226	US 1995-463691	19950605
			US 1989-382712 B219890718	
			US 1990-555196 B219900718	
			US 1991-644233 B119910118	
			US 1994-255236 A319940607	

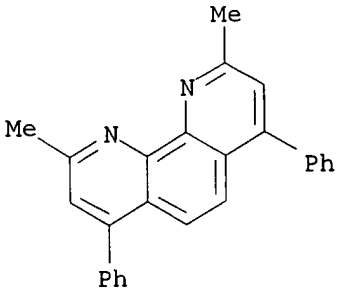
AB Reporter genes and hybridization assays are used to screen and identify compds. that modulate the transcription of a gene encoding a protein of interest assocd. with treatment of one or more symptoms of a cardiovascular disease such as atherosclerosis, restenosis or hypertension. The compds. identified can be used therapeutically in the modulation of transcription of human genes encoding a proteins of interest assocd. with treatment of one or more symptoms of a cardiovascular disease, thus ameliorating the disease. Construction of reporter gene constructs using promoters from a no. of genes assocd. with cardiovascular

disease to drive a luciferase gene using animal cell hosts is described. Results from a preliminary high throughput screen identified a no. of chems. inducing the granulocyte colony-stimulating factor gene.

IT **52698-84-7**, Bathocuproinedisulfonic acid disodium salt
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(induction of mouse mammary tumor virus gene expression by; reporter gene methods for identification of compds. that modulate transcription of genes assocd. with cardiovascular disease)

RN 52698-84-7 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

●2 Na

L15 ANSWER 11 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1996:660913 CAPLUS

DN 125:293042

TI Use of angiogenesis suppressors for inhibiting hair growth

IN Ahluwalia, Gurpreet S.; Styczynski, Peter; Shander, Douglas

PA Handelman, Joseph H., USA

SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2

DT **Patent**

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9626712	A2	19960906	WO 1996-US2790	19960227 <--
	WO 9626712	A3	19961121		

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI

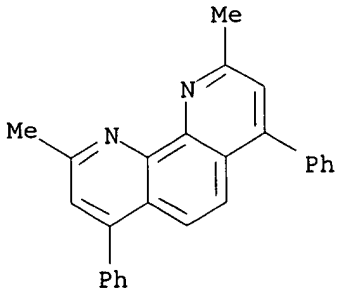
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE,

IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML			US 1995-396446 A 19950228	
CA 2213404	AA	19960906	CA 1996-2213404	19960227 <--
			US 1995-396446 A 19950228	
AU 9653009	A1	19960918	AU 1996-53009	19960227 <--
AU 719106	B2	20000504		
			US 1995-396446 A 19950228	
			WO 1996-US2790 W 19960227	
EP 812185	A2	19971217	EP 1996-909552	19960227 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
			US 1995-396446 A 19950228	
			WO 1996-US2790 W 19960227	
BR 9607060	A	19981215	BR 1996-7060	19960227 <--
			US 1995-396446 A 19950228	
			WO 1996-US2790 W 19960227	
JP 11501035	T2	19990126	JP 1996-526415	19960227
			US 1995-396446 A 19950228	
			WO 1996-US2790 W 19960227	
ZA 9601600	A	19960905	ZA 1996-1600	19960228 <--
			US 1995-396446 A 19950228	
US 6093748	A	20000725	US 1997-963227	19971103
			US 1995-396446 B1	19950228

AB A method of inhibiting hair growth in a mammal includes applying, to an area of skin from which reduced hair growth is desired, a dermatol. acceptable compn. contg. a non-steroidal suppressor of angiogenesis. The effective compds. include sulfotransferase inhibitors, heparin binding antagonists, Cu chelators, histidine decarboxylase inhibitors, mast cell degranulation inhibitors, histamine receptor antagonists, ACE inhibitors, angiotensin II receptor antagonists, prostaglandin synthetase inhibitors, NK1 receptor antagonists, PAF receptor antagonists, and cytochrome P 450 reductase inhibitors. A topical prepn. contg. 10 % bathocuproine, was applied to male intact Golden Syrian hamsters; hair growth was inhibited by 81 %.

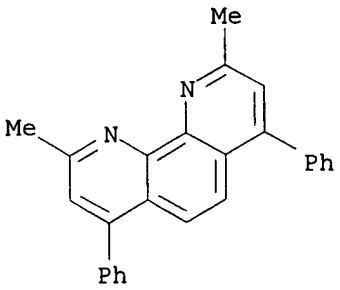
IT **4733-39-5**, Bathocuproine **52698-84-7**, Bathocuproinesulfonate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(angiogenesis suppressors for inhibiting hair growth)

RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 52698-84-7 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

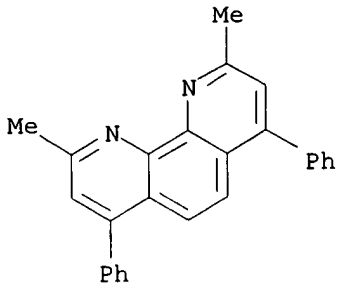
●2 Na

L15 ANSWER 12 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1996:254687 CAPLUS
DN 124:284865
TI In vitro cultivation of pleiomorphic strains of trypanosomes and screening of trypanosomicides
IN Boshart, Michael; Vassella, Erik
PA Max-Planck-Gesellschaft zur Foerderung der Wissenschaften eV., Germany
SO Ger., 3 pp.
CODEN: GWXXAW
DT **Patent**
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19505056	C1	19960314	DE 1995-19505056	19950215 <--
	WO 9625485	A1	19960822	WO 1996-EP651	19960215 <--
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				DE 1995-19505056	19950215
	EP 809690	A1	19971203	EP 1996-904791	19960215 <--
	R: DE, FR, GB, IT				
				DE 1995-19505056	19950215
				WO 1996-EP651	19960215

AB A culture medium for culture of pleiomorphic trypanosomes is described for use in the screening of potential trypanosomicides. The medium is a modified Iscove's modified Dulbecco's medium supplemented with serum, hypoxanthine, bathocuproin bisulfonate, 2-mercaptoethanol, thymidine, pyruvate, penicillin/streptomycin, and cysteine.

IT **73348-75-1**, Bathocuproinedisulfonic acid
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(culture medium supplement; in vitro cultivation of pleiomorphic strains of trypanosomes and screening of trypanosomicides)
RN 73348-75-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA
INDEX NAME)



2 [D1—SO_3H]

L15 ANSWER 13 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1995:487954 CAPLUS
DN 122:234852
TI Method for the culture in vitro of different stages of tissue parasites
IN Lemesre, Jean-Loup
PA Institut Francais de Recherche Scientifique pour le Developpement en Cooperation (ORSTOM), Fr.
SO PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DT **Patent**
LA French
FAN.CNT 1

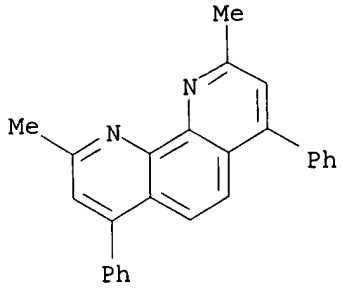
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9426899	A1	19941124	WO 1994-FR577	19940513	<--
	W: AU, BR, CA, JP, US					
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
				FR 1993-5779	19930513	
	FR 2705358	A1	19941125	FR 1993-5779	19930513	<--
	FR 2705358	B1	19950804			
	CA 2162555	AA	19941124	CA 1994-2162555	19940513	<--
				FR 1993-5779	19930513	
	AU 9468000	A1	19941212	AU 1994-68000	19940513	<--
				FR 1993-5779	19930513	
				WO 1994-FR577	19940513	
	EP 698099	A1	19960228	EP 1994-916287	19940513	<--
	R: CH, DE, ES, FR, GB, IT, LI, NL					

FR 1993-5779 19930513
WO 1994-FR577 19940513

AB The method of the invention comprises the implementation of axenic conditions, with the utilization of a liq. monophase culture medium. To obtain amastigote forms, said medium is buffered to a pH from 5.5 to 6.5 and has an osmolarity of at least 400 milliosmoles/kg, and in particular from 400 to 550 milliosmoles/kg liq. To obtain promastigote forms, said medium is buffered to a pH from 7 to 7.5 and has an osmolarity of at least 300 milliosmoles/kg liq. Said method provides for the adaptation in the culture in vitro of different stages of tissue parasites such as leishmanias and T. cruzi or the hematoprotozoans.

IT **73348-75-1**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(culture in vitro of different stages of tissue parasites)

RN 73348-75-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA INDEX NAME)



2 [D1—SO3H]

L15 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1995:354345 CAPLUS
DN 122:122170
TI Method for monovalent copper determination
IN Tazaki, Shinji
PA Sumitomo Metal Mining Co, Japan
SO Jpn. Kokai Tokkyo Koho, 2 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI JP 06249775	A2	19940909	JP 1993-57975	19930224	<--

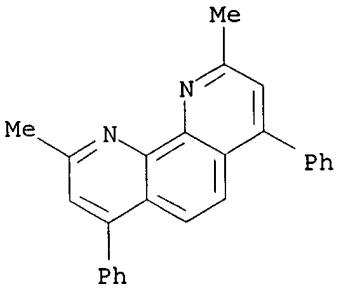
AB The title method is characterized by that Cu(I) sample soln. is added into

an alc. soln. contg. neocuproine or bathocuproine to form a complex and followed by spectrophotometry.

IT **4733-39-5**, Bathocuproine
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (method for monovalent copper detn.)

RN 4733-39-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1995:347104 CAPLUS

DN 122:256396

TI Stable copper(I) complexes with multidentate ligands as therapeutic agents

IN Pallenberg, Alexander J.; Branca, Andrew; Marschner, Thomas M.; Patt, Leonard M.

PA Procyte Corp., USA

SO PCT Int. Appl., 88 pp.
CODEN: PIXXD2

DT **Patent**

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9427594	A2	19941208	WO 1994-US6247	19940602	<--
	WO 9427594	A3	19950427			
	W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LV, MD, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, UZ, VN					
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
				US 1993-71440	19930602	
	CA 2163640	AA	19941208	CA 1994-2163640	19940602	<--
				US 1993-71440	19930602	
	AU 9470517	A1	19941220	AU 1994-70517	19940602	<--
				US 1993-71440	19930602	
				WO 1994-US6247	19940602	
	ZA 9403857	A	19950201	ZA 1994-3857	19940602	<--
				US 1993-71440	19930602	
	EP 701439	A1	19960320	EP 1994-919342	19940602	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					

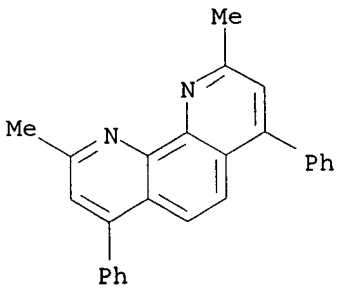
			US 1993-71440	19930602
			WO 1994-US6247	19940602
ZA 9409336	A	19950808	ZA 1994-9336	19941124 <--
			WO 1994-US6247	19940602

AB Stable copper(I) complexes useful as therapeutic agents comprise a copper(I) ion complexed by a multi-dentate ligand which favors the +1 oxidn. state for copper. The stable copper(I) complexes of the invention are useful as wound healing agents, anti-oxidative agents, anti-inflammatory agents, lipid modulating agents, signal transduction modulating agents, hair growth agents, and anti-viral agents. Exemplary stable copper(I) complexes include neocuproine copper(I) and bathocuproine disulfonic acid copper(I). The synthesis of neocuproine copper(I) complex synthesis is given.

IT **73348-75-1D**, complexes with copper
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stable copper(I) complexes with multidentate ligands as therapeutic agents)

RN 73348-75-1 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

L15 ANSWER 16 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1994:650652 CAPLUS

DN 121:250652

TI Multiple fluorescence labeling of immunoassay reagents with europium chelators

IN Diamandis, Eleftherios P.; Morton, Robert C.

PA Nordion International Inc., Can.

SO Can., 60 pp.
CODEN: CAXXA4

DT **Patent**

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 1330061	A1	19940607	CA 1989-599628	19890515 <--

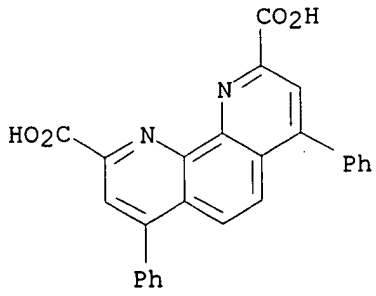
OS MARPAT 121:250652

AB A conjugate, for use in a labeling system, comprises avidin or streptavidin linked to a (submicron-size) carrier particle, e.g. of latex, having >15 amino groups on its surface which are individually capable of being labeled with an operable label, the carrier particle being capable of being linked to avidin or streptavidin to form the conjugate. The particle may a protein mol. or be coated with protein mols. having the amino groups on their surface. The protein may be thyroglobulin, bovine serum albumin, hemocyanin, myosin, apoferritin, catalase, a lysine copolymer, .alpha.2-macroglobulin, leucine aminopeptidase, heavy meromyosin, or histone. Preferred labels are fluorescent lanthanide chelates, esp. those contg. 4,7-diphenyl-1,10-phenanthroline-2,9-dicarboxylic acid derivs. Eu3+ in optimal concn. induces formation of a streptavidin-based macromol. complex which amplifies the assay signal. Thus, in a FIA for .alpha.-fetoprotein (AFP), a sample soln. was incubated in a microtiter well coated with antibody to AFP. After washing, the well was incubated with a biotinylated 2nd antibody, washed, and incubated with a streptavidin conjugate of thyroglobulin labeled with 4,7-bis(chlorosulfophenyl)-1,10-phenanthroline-2,9-dicarboxylic acid Eu complex. The sensitivity of this assay was 0.01 ng/mL.

IT **102331-59-9D**, derivs., lanthanide chelates
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(particle-bound; multiple fluorescence labeling of immunoassay reagents with europium chelators)

RN 102331-59-9 CAPLUS

CN 1,10-Phenanthroline-2,9-dicarboxylic acid, 4,7-diphenyl- (9CI) (CA INDEX NAME)



L15 ANSWER 17 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1994:646338 CAPLUS

DN 121:246338

TI Superoxide dismutase gene mutations as causes of neurodegenerative diseases and compounds and methods for the diagnosis, treatment, and prevention of the diseases

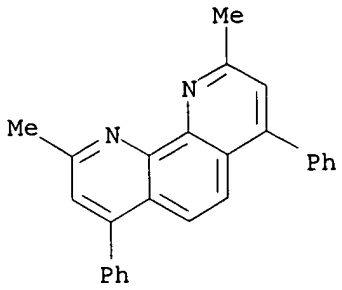
IN Brown, Robert; Horvitz, H. Robert; Rosen, Daniel R.
PA General Hospital Corp., USA; Massachusetts Institute of Technology
SO PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9419493	A1	19940901	WO 1994-US2089	19940228 <--
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
			US 1993-23980	19930226
US 5843641	A	19981201	US 1993-23980	19930226 <--
CA 2157041	AA	19940901	CA 1994-2157041	19940228 <--
			US 1993-23980	19930226
EP 686203	A1	19951213	EP 1994-910183	19940228 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
			US 1993-23980	19930226
			WO 1994-US2089	19940228
JP 08510377	T2	19961105	JP 1994-519309	19940228 <--
			US 1993-23980	19930226
			WO 1994-US2089	19940228
US 5849290	A	19981215	US 1995-486953	19950607 <--
			US 1993-23980	19930226
			US 1994-204052	19940228

AB Disclosed is the family of genes responsible for the neurodegenerative diseases, particularly amyotrophic lateral sclerosis (ALS). Methods and compds. for the diagnosis, prevention, and therapy of the disease are also disclosed. Uses of the compds. in the prepn. of diagnostic and therapeutic medicaments are also provided. Fourteen different SOD1 missense mutations in 16 different familial ALS families were identified. The mutations were identified by PCR followed by single-strand conformational polymorphism anal. The most common single mutation was an Ala-4 to Val substitution in exon 1. This mutation reduced the total SOD activity by 50% compared to normal controls. Addnl. polymorphisms were identified in exons 3 and 4 as well as in intron 3. Some of these mutations are detectable by restriction fragment length polymorphism.

IT **73348-75-1**, BCDA
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(SOD inhibitor; superoxide dismutase gene mutations as causes of neurodegenerative diseases and compds. and methods for diagnosis, treatment, and prevention of the diseases)

RN 73348-75-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI) (CA INDEX NAME)

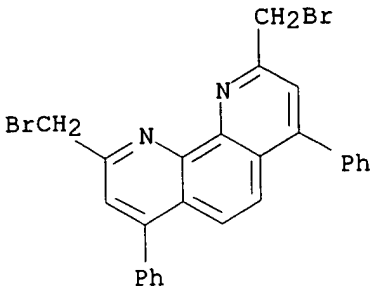


2 [D1—SO_3H]

L15 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1994:495786 CAPLUS
DN 121:95786
TI Lanthanide cryptate of trisphenanthroline
IN Honzawa, Katsu
PA Hamamatsu Photonics K.K., Japan
SO U.S., 7 pp. Cont. of U.S. Ser. No. 519,594, abandoned.
CODEN: USXXAM
DT **Patent**
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5286848	A	19940215	US 1993-51819	19930426 <--
				US 1990-519594	19900507

AB A photoactive lanthanide complex of 2,2,2",9,9'9"-bis [nitrilotri(methylene)]tris(1,10-phenanthroline) and its functional deriv.
capable of bonding with substrate such as polymer and protein are provided. The lanthanide complex is usable for photosynthesis and photoimmunoassay.
IT **144209-59-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, lanthanide cryptate of trisphenanthroline from)
RN 144209-59-6 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(bromomethyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



L15 ANSWER 19 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1994:204088 CAPLUS
DN 120:204088
TI Organic electroluminescent device
IN Nakada, Hitoshi
PA Pioneer Electronic Corp., Japan
SO Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DT **Patent**
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 564224	A2	19931006	EP 1993-302459	19930330 <--
	EP 564224	A3	19940119		
	EP 564224	B1	19970528		
	R: DE, FR, GB, NL				
				JP 1992-82197	19920403
				JP 1992-313618	19921124
	JP 05331459	A2	19931214	JP 1992-313618	19921124 <--
				JP 1992-82197	19920403
	US 5393614	A	19950228	US 1993-37454	19930326 <--
				JP 1992-82197	19920403
				JP 1992-313618	19921124

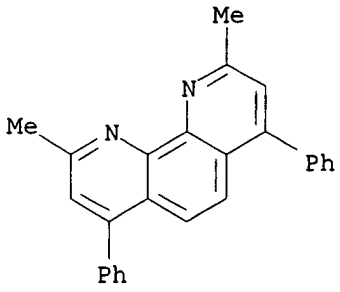
OS MARPAT 120:204088
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Electroluminescent devices comprising an anode an org. hole transport layer, an org. emitting layer, an org. electron transport layer, and a cathode are described in which the electron transport layer is formed from a phenathroline deriv. described by 1 of the general formulas I, II, III and IV (R1-R10 are independently selected from H, substituted or unsubstituted alkyl, aryl, and amino groups, halogen atoms, nitro groups, cyano groups, and hydroxyl groups).

IT **4733-39-5**
RL: PRP (Properties)
(electroluminescent devices with electron transporting layers from)

RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 20 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1994:127807 CAPLUS
DN 120:127807
TI Herbicidal .delta.-aminolevulinic acid combinations with chlorophyll biosynthesis modulators.
IN Rebeiz, Constantin A.
PA Board of Trustees of the University of Illinois, USA
SO U.S., 40 pp. Cont.-in-part of U.S. 5,163,990.
CODEN: USXXAM
DT **Patent**
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5242892	A	19930907	US 1990-615413	19901119 <--
			US 1984-634932	B219840727
			US 1985-754092	B119850715
			US 1986-895529	A219860811
			US 1990-521119	A219900503
EP 331211	A2	19890906	EP 1989-106579	19850717 <--
EP 331211	A3	19891123		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
			US 1984-634932 A	19840727
			US 1985-754092 A	19850715
			EP 1985-903637 P	19850717
ZA 8505561	A	19860326	ZA 1985-5561	19850723 <--
			US 1984-634932 A	19840727
US 5127938	A	19920707	US 1986-895529	19860811 <--
			US 1984-634932	B219840727
			US 1985-754092	B119850715
US 5200427	A	19930406	US 1989-294132	19890109 <--
			US 1984-634932	B219840727
			US 1985-754092	B119850715
			US 1986-895529	A219860811
			US 1988-144883	B219880113
US 5163990	A	19921117	US 1990-521119	19900503 <--
			US 1984-634932	B219840727
			US 1985-754092	B119850715

				US 1986-895529 A219860811
	CA 2080140	AA	19911104	CA 1991-2080140 19910502 <--
				US 1990-521119 A 19900503
				US 1990-615413 A 19901119
	WO 9116820	A1	19911114	WO 1991-US3015 19910502 <--
	W: CA, JP, KR			
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE			
				US 1990-521119 A 19900503
				US 1990-615413 A 19901119
	EP 527186	A1	19930217	EP 1991-909022 19910502 <--
	R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL			
				US 1990-521119 A 19900503
				US 1990-615413 A 19901119
				WO 1991-US3015 W 19910502
	JP 06500989	T2	19940127	JP 1991-508902 19910502 <--
				US 1990-521119 A 19900503
				US 1990-615413 A 19901119
				WO 1991-US3015 W 19910502
	JP 2001151614	A2	20010605	JP 2000-226123 19910502
				US 1990-521119 A 19900503
				US 1990-615413 A 19901119
				JP 1991-508902 A319910502
	US 5286708	A	19940215	US 1991-773030 19911008 <--
				US 1984-634932 B219840727
				US 1985-754092 B119850715
				US 1986-895529 A319860811
	US 5300526	A	19940405	US 1991-795367 19911120 <--
				US 1984-634932 B219840727
				US 1985-754092 B119850715
				US 1986-895529 A219860811
				US 1988-144883 B219880113
				US 1989-294132 A319890109
	US 5321001	A	19940614	US 1992-915896 19920717 <--
				US 1984-634932 B219840727
				US 1985-754092 B119850715
				US 1986-895529 A219860811
				US 1990-521119 A319900503

PATENT FAMILY INFORMATION:

FAN 1986:163743

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8600785	A1	19860213	WO 1985-US1356	19850717
	W: AU, BR, HU, JP, SU				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
				US 1984-634932 A 19840727	
				US 1985-754092 A 19850715	
	AU 8546353	A1	19860225	AU 1985-46353	19850717
	AU 595162	B2	19900329		
				US 1984-634932 A 19840727	
				US 1985-754092 A 19850715	
				WO 1985-US1356 A 19850717	
	EP 190203	A1	19860813	EP 1985-903637	19850717
	EP 190203	B1	19920916		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
				US 1984-634932 A 19840727	
				US 1985-754092 A 19850715	

JP 61502814	T2	19861204	JP 1985-503258 19850717
JP 07042204	B4	19950510	
			US 1984-634932 A 19840727
			US 1985-754092 A 19850715
			WO 1985-US1356 W 19850717
EP 331211	A2	19890906	EP 1989-106579 19850717
EP 331211	A3	19891123	
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE			
			US 1984-634932 A 19840727
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			US 1984-634932 A 19840727
			US 1985-754092 A 19850715
			EP 1985-903637 A 19850717
			WO 1985-US1356 A 19850717
ZA 8505561	A	19860326	ZA 1985-5561 19850723
			US 1984-634932 A 19840727
CA 1266991	A1	19900327	CA 1985-487622 19850726
			US 1984-634932 A 19840727
			US 1985-754092 A 19850715
US 5200427	A	19930406	US 1989-294132 19890109
			US 1984-634932 B219840727
			US 1985-754092 B119850715
			US 1986-895529 A219860811
			US 1988-144883 B219880113
US 5300526	A	19940405	US 1991-795367 19911120
			US 1984-634932 B219840727
			US 1985-754092 B119850715
			US 1986-895529 A219860811
			US 1988-144883 B219880113
			US 1989-294132 A319890109

FAN 1990:493312

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 326835	A1	19890809	EP 1989-100605	19890113
	EP 326835	B1	19930811		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
				US 1988-144883 A	19880113
	IL 88867	A1	19940530	IL 1989-88867	19890103
				US 1988-144883 A	19880113
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				US 1988-144883 A	19880113
	US 5200427	A	19930406	US 1989-294132	19890109
				US 1984-634932 B219840727	
				US 1985-754092 B119850715	
				US 1986-895529 A219860811	
				US 1988-144883 B219880113	
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				US 1988-144883 A	19880113
	DK 8900138	A	19890714	DK 1989-138	19890113
				US 1988-144883 A	19880113
	FI 8900177	A	19890714	FI 1989-177	19890113
				US 1988-144883 A	19880113
	AU 8928498	A1	19890720	AU 1989-28498	19890113
	AU 626533	B2	19920806		

			US 1988-144883 A 19880113
BR 8900169	A	19890912	BR 1989-169 19890113
			US 1988-144883 A 19880113
CN 1036688	A	19891101	CN 1989-101403 19890113
			US 1988-144883 A 19880113
HU 50179	A2	19891228	HU 1989-131 19890113
			US 1988-144883 A 19880113
JP 02138201	A2	19900528	JP 1989-7533 19890113
JP 2866095	B2	19990308	
			US 1988-144883 A 19880113
DD 283317	A5	19901010	DD 1989-325032 19890113
			US 1988-144883 A 19880113
AT 92712	E	19930815	AT 1989-100605 19890113
			US 1988-144883 A 19880113
			EP 1989-100605 A 19890113
CA 1338855	A1	19970121	CA 1989-588241 19890113
			US 1988-144883 A 19880113
US 5300526	A	19940405	US 1991-795367 19911120
			US 1984-634932 B219840727
			US 1985-754092 B119850715
			US 1986-895529 A219860811
			US 1988-144883 B219880113
			US 1989-294132 A319890109

FAN 1992:230222

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9116820	A1	19911114	WO 1991-US3015	19910502
W: CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
			US 1990-521119 A	19900503
			US 1990-615413 A	19901119
US 5163990	A	19921117	US 1990-521119	19900503
			US 1984-634932 B219840727	
			US 1985-754092 B119850715	
			US 1986-895529 A219860811	
US 5242892	A	19930907	US 1990-615413	19901119
			US 1984-634932 B219840727	
			US 1985-754092 B119850715	
			US 1986-895529 A219860811	
			US 1990-521119 A219900503	
EP 527186	A1	19930217	EP 1991-909022	19910502
R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL				
			US 1990-521119 A	19900503
			US 1990-615413 A	19901119
			WO 1991-US3015 W	19910502
JP 06500989	T2	19940127	JP 1991-508902	19910502
			US 1990-521119 A	19900503
			US 1990-615413 A	19901119
			WO 1991-US3015 W	19910502

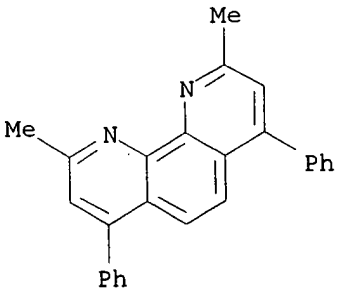
AB The title compns. are defoliants and herbicides, with activity based on the accumulation of photodynamic tetrapyrrols. A mixt. of 20 mM .gamma.-aminolevulinic acid and 15 mM 6-aminonicotinic acid defoliated tomato seedlings.

IT **126840-94-6**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BIOL (Biological study); USES (Uses)

(herbicide and defoliant)
RN 126840-94-6 CAPLUS
CN Pentanoic acid, 5-amino-4-oxo-, mixt. with 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline (9CI) (CA INDEX NAME)

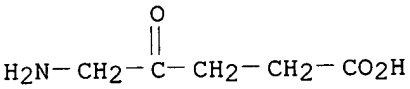
CM 1

CRN 4733-39-5
CMF C26 H20 N2



CM 2

CRN 106-60-5
CMF C5 H9 N O3



L15 ANSWER 21 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1993:76599 CAPLUS
DN 118:76599
TI Lanthanide fluorescence assay for bioaffinity compounds
IN Xu, Yongyuan
PA Oy Datacity Center Ab, Finland
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT **Patent**
LA English
FAN.CNT 1

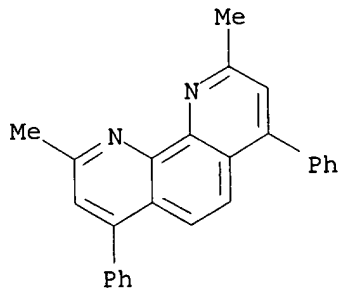
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9216840	A1	19921001	WO 1992-FI72	19920313 <--
	W: JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
				FI 1991-1297	19910315
	FI 88654	B	19930226	FI 1991-1297	19910315 <--
	FI 88654	C	19930610		

US 5316909 A 19940531 US 1992-851561 19920313 <--
FI 1991-1297 19910315

AB A (time-resolved) fluorescence-based assay for detn. of a bioaffinity component comprises labeling .gtoreq.1 of the bioaffinity components with a lanthanide chelate, forming a lanthanide chelate for a fluorescence measurement after the reaction, and measuring the fluorescence of the chelate, characterized in that the lanthanide is brought to a strongly fluorescent form by incorporating the lanthanide in an aggregated particle that comprises the lanthanide chelate and a chelate of a fluorescence-increasing ion (e.g. Y3+, Gb3+, etc.) to bring about a cofluorescence effect. Cofluorescence is improved with .beta.-diketone and synergistic compd. (1,10-phenantroline, 2,21-dipyridyl, etc.). An immunofluorometric assay for FSH used monoclonal anti-.alpha.-FSH antibody labeled with N1-(p-isothiocyanatebenzyl)diethylenetriamine-N1,N2,N3,N4-tetraacetic acid chelated with Eu and microtiter plates coated with monoclonal anti-.beta.-FSH antibody. The immobilized labeled antibody was developed with solns. 1 (thenoyltrifluoroacetone, Y3+, and Triton X-100) and 2 (phenantroline in Tris buffer) and measured by a time-resolved fluorometer.

IT **4733-39-5**
RL: PRP (Properties)
(lanthanide chelate aggregates contg., in cofluorescence enhancement of fluorescence assay for bioaffinity components)

RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 22 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1993:33948 CAPLUS
DN 118:33948
TI Methods of screening for transcriptional modulators and for transcriptional modulation of gene expression
IN Foulkes, J. Gordon; Case, Casey C.; Leichtfried, Franz; Pieler, Christian;
Stephenson, John
PA Oncogene Science, Inc., USA
SO PCT Int. Appl., 166 pp.
CODEN: PIXXD2

DT **Patent**
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9212635	A1	19920806	WO 1992-US424	19920117	<--
	W: AU, CA, FI, HU, JP, KR, NO, RU, US					
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE					
				US 1991-644233	A219910118	
	AU 9213472	A1	19920827	AU 1992-13472	19920117	<--
				US 1991-644233	A 19910118	
				WO 1992-US424	A 19920117	
	US 6203976	B1	20010320	US 1994-255236	19940607	
				US 1989-382712	B219890718	
				US 1990-555196	B219900718	
				US 1991-644233	B119910118	
	US 6165712	A	20001226	US 1995-463691	19950605	
				US 1989-382712	B219890718	
				US 1990-555196	B219900718	
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				US 1994-255236	A319940607	

PATENT FAMILY INFORMATION:

FAN 1991:529160

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PI	WO 9101379	A1	19910207	WO 1990-US4021	19900718
	W: AU, CA, FI, HU, JP, KR, NO, SU				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
				US 1989-382712 A	19890718
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				US 1989-382712 A	19890718
	AU 9061400	A1	19910222	AU 1990-61400	19900718
	AU 660405	B2	19950629		
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				WO 1990-US4021 A	19900718
	EP 483249	A1	19920506	EP 1990-911558	19900718
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
				US 1989-382712 A	19890718
				WO 1990-US4021 W	19900718
	JP 04506902	T2	19921203	JP 1990-511061	19900718
				US 1989-382712 A	19890718
				WO 1990-US4021 W	19900718
	US 6203976	B1	20010320	US 1994-255236	19940607
				US 1989-382712	B219890718
				US 1990-555196	B219900718
				US 1991-644233	B119910118
	US 5665543	A	19970909	US 1994-267834	19940628
				US 1989-382712	B219890718
				US 1990-555196	B119900718
				US 1993-13343	B119930204
				US 1993-134215	B119931008
	US 6165712	A	20001226	US 1995-463691	19950605
				US 1989-382712	B219890718
				US 1990-555196	B219900718
				US 1991-644233	B119910118
				US 1994-255236	A319940607

US 5976793	A	19991102	US 1996-683455 19960718
			US 1989-382712 B119890718
			US 1990-555196 B119900718
			US 1993-13343 B119930204
			US 1993-134215 B119931008
			US 1994-267834 A119940628
US 5863733	A	19990126	US 1997-779230 19970106
			US 1989-382712 B219890718
			US 1990-555196 A119900718
			US 1993-13343 B119930204
			US 1993-134215 B119931008
			US 1994-267834 A119940628
US 6136779	A	20001024	US 1997-778754 19970106
			US 1989-382712 B119890718
			US 1990-555196 B119900718
			US 1993-13343 B119930204
			US 1993-134215 B119931008
			US 1994-267834 A119940628

FAN 1996:754393

PATENT NO.	KIND	DATE	APPLICATION NO. DATE
PI US 5580722	A	19961203	US 1992-832905 19920207
			US 1989-382712 B219890718
			US 1990-555196 B219900718
US 6203976	B1	20010320	US 1994-255236 19940607
			US 1989-382712 B219890718
			US 1990-555196 B219900718
			US 1991-644233 B119910118
US 5665543	A	19970909	US 1994-267834 19940628
			US 1989-382712 B219890718
			US 1990-555196 B119900718
			US 1993-13343 B119930204
			US 1993-134215 B119931008
US 6165712	A	20001226	US 1995-463691 19950605
			US 1989-382712 B219890718
			US 1990-555196 B219900718
			US 1991-644233 B119910118
			US 1994-255236 A319940607
US 5976793	A	19991102	US 1996-683455 19960718
			US 1989-382712 B119890718
			US 1990-555196 B119900718
			US 1993-13343 B119930204
			US 1993-134215 B119931008
			US 1994-267834 A119940628
US 5846720	A	19981208	US 1996-700757 19960815
			US 1989-382712 B219890718
			US 1990-555196 B219900718
			US 1992-832905 A119920207
US 5863733	A	19990126	US 1997-779230 19970106
			US 1989-382712 B219890718
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			US 1993-13343 B119930204
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US 6136779	A	20001024	US 1997-778754 19970106
			US 1989-382712 B119890718

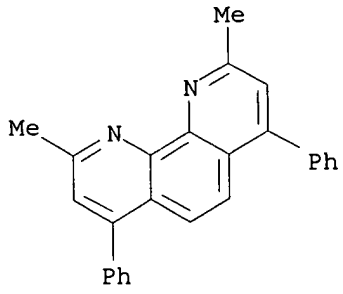
US 1990-555196 B119900718
US 1993-13343 B119930204
US 1993-134215 B119931008
US 1994-267834 A119940628

AB A method for directly modulating, using an exogenous compd., transcription of a viral gene, the product of which is assocd. with a physiol. or pathol. state of the host cell or multicellular organism, is disclosed . The method can also be used for modulating the expression of a gene encoding a desirable protein product. A method for screening transcription inducers or inhibitors using the luciferase gene fused with a promoter of yeast, virus, or animal cells as a reporter was described. Approx. 100 chems. (of 2000 tested) which selectively modulated gene expression were identified.

IT **52698-84-7**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BIOL (Biological study); PROC (Process)
(transcriptional activator in mammalian cell culture)

RN 52698-84-7 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

●2 Na

L15 ANSWER 23 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1993:3409 CAPLUS

DN 118:3409

TI Fluorescent compound, complex, reagent, and specific binding assay employing said reagent

IN Sasamoto, Kazumi; Horiguchi, Daikichi; Nobuhara, Masahiro; Mochizuki, Hiroshi

PA Dojindo Laboratories, Japan; Mochida Pharmaceutical Co., Ltd.

SO Eur. Pat. Appl., 50 pp.
CODEN: EPXXDW

DT **Patent**
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	EP 493745	A1	19920708	EP 1991-121707	19911218	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE					
				JP 1990-405268	19901221	
				JP 1991-36020	19910301	
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				JP 1990-405268	19901221	
	AU 9189931	A1	19920625	AU 1991-89931	19911219	<--
	AU 642324	B2	19931014			
				JP 1990-405268	19901221	
				JP 1991-36020	19910301	
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				JP 1991-36020	19910301	
	US 5262526	A	19931116	US 1991-811533	19911220	<--
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				JP 1991-36020	19910301	

OS MARPAT 118:3409
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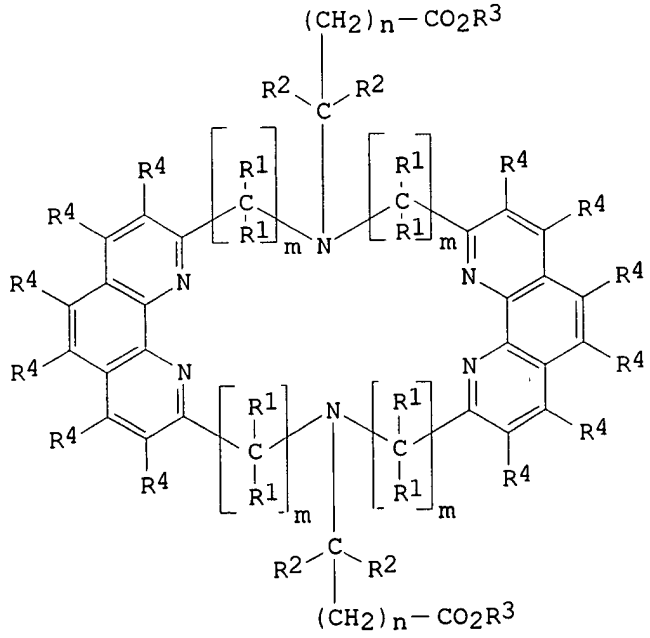


I

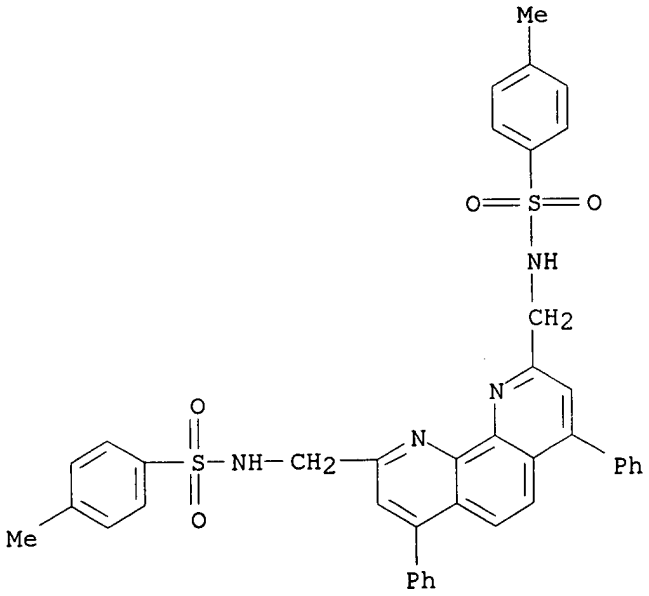
AB Fluorescent compd. I (R1 = H, alkyl, alkenyl, alkynyl, aralkyl, aryl; R2 = H, aryl, alkyl; R3 = functional group; R4 = H, alkyl, alkenyl, alkynyl, aryl, CO2H, OH, alkoxyl, NH2, etc.; m = 1, 2; n = 0-4) forms stable

complexes with a rare earth metal ion and has satisfactory fluorescence intensity even in an aq. system. The complex has a long fluorescence lifetime. Reagents labeled with I are useful in specific binding assays.

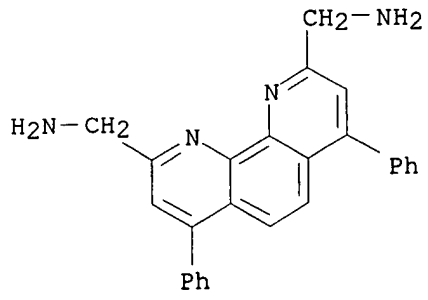
7,10-Bis(chlorosulfophenyl)-2,15-diaza[3.3](2,9)-1,10-phenanthrolinophane-N2,N15-diacetic acid (prepn. given) was conjugated with monoclonal antibody to human chorionic gonadotropin (hCG) and used in a time-resolved fluoroimmunoassay for hCG. The conjugate was complexed with EuCl3 before or during the assay.

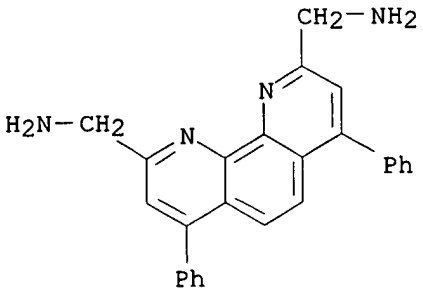
IT **144231-27-6P 144231-30-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, in synthesis of reagent for specific binding fluorescence assays)

RN 144231-27-6 CAPLUS
CN Benzenesulfonamide, N,N'-[(4,7-diphenyl-1,10-phenanthroline-2,9-diyl)bis(methylene)]bis[4-methyl- (9CI) (CA INDEX NAME)

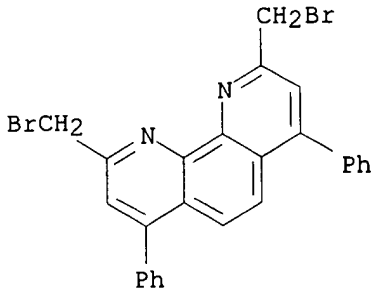


RN 144231-30-1 CAPLUS
CN 1,10-Phenanthroline-2,9-dimethanamine, 4,7-diphenyl- (9CI) (CA INDEX NAME)





IT **144209-59-6**
RL: RCT (Reactant)
(reaction of, in synthesis of reagent for specific binding fluorescence
assays)
RN 144209-59-6 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(bromomethyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



L15 ANSWER 24 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1992:416862 CAPLUS
DN 117:16862
TI Electroluminescent devices
IN Sakon, Yohta; Ohnuma, Teruyuki; Hashimoto, Mitsuru; Saito, Shogo; Tsutsui,
Tetsuo; Adachi, Chihaya
PA Ricoh Co., Ltd., Japan
SO U.S., 59 pp.
CODEN: USXXAM
DT **Patent**
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5077142	A	19911231	US 1990-511407	19900419 <--
				JP 1989-102057	19890420
				JP 1990-8006	19900116

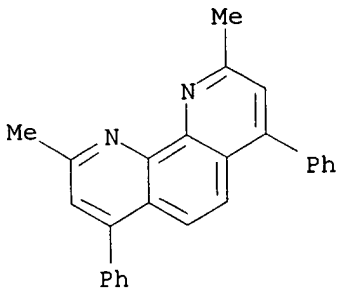
OS MARPAT 117:16862
AB Electroluminescent devices comprising an anode and a cathode sandwiching

.gtoreq.1 org. layer(s) are described in which the org. layer(s) include a compd. represented by the general formula (B)m-(A)n (B = selected cyclic hydrocarbons, condensed polycyclic hydrocarbons, O-contg. heterocycles, N-contg. heterocycles, and S-contg. heterocycles; A = benzene, biphenyl, methoxybenzene, or naphthalene groups; m = an integer in the range 1-6; and n = an integer in the range 1-6).

IT **4733-39-5**
RL: DEV (Device component use); USES (Uses)
(electroluminescent devices contg.)

RN 4733-39-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 25 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1992:247567 CAPLUS

DN 116:247567

TI Dry element for determination of iron ions

IN Katsuyama, Harumi

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW

DT **Patent**

LA English

FAN.CNT 1

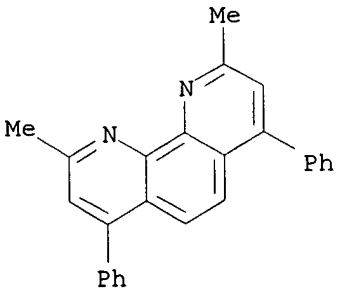
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 482528	A1	19920429	EP 1991-117833	19911018 <--
	EP 482528	B1	19960327		
	R: DE, FR, GB				
				JP 1990-282316	19901020
	JP 04157365	A2	19920529	JP 1990-282316	19901020 <--
	JP 2547664	B2	19961023		
	US 5186894	A	19930216	US 1991-780740	19911018 <--
				JP 1990-282316	19901020

AB A dry element, for detg. iron ions, is improved in selectivity so that sensitivity can be high without interference by the presence of hindering Cu2+ and/or Zn2+ ions. The element comprises a detection reagent layer contg. Nitro-PAPS acting as a chelating agent and a cationic compd., and a pre-treating layer contg. a Cu2+-specific chelating agent. Also included is a pH buffer for keeping the pH value of the detection reagent layer

within the range of from pH 3.0 to 5.0. The pH adjusting buffer may be contained in either 1 of the detection reagent layer or the pre-treating layer, or may be contained in another layer. The detection reagent layer may be composed of a coloring reagent layer contg. Nitro-PAPS acting as the chelating agent, and a diffusion-preventing layer laminated on the coloring reagent layer and contg. the cationic compd. Application to body fluids like blood and/or urine is indicated.

IT **52698-84-7 4733-39-5**
RL: ANST (Analytical study)
(in detn. of iron ions, dry element comprising)

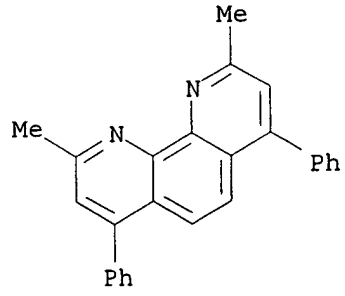
RN 52698-84-7 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

●2 Na

RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 26 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1992:230222 CAPLUS
DN 116:230222
TI Photodynamic tetrapyrrole inducer defoliants and herbicides. Porphyrin-heme biosynthesis modulator insecticides.
IN Rebeiz, Constantin A.
PA University of Illinois, USA
SO PCT Int. Appl., 124 pp.
CODEN: PIXXD2
DT **Patent**
LA English
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9116820	A1	19911114	WO 1991-US3015	19910502	<--
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				US 1990-615413 A	19901119	
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				US 1984-634932 B2	19840727	
				US 1985-754092 B1	19850715	
				US 1986-895529 A2	19860811	
	US 5242892	A	19930907	US 1990-615413	19901119	<--
				US 1984-634932 B2	19840727	
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				US 1986-895529 A2	19860811	
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	R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL					
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				US 1990-521119 A	19900503	
				US 1990-615413 A	19901119	
				WO 1991-US3015 W	19910502	

PATENT FAMILY INFORMATION:

FAN 1986:163743

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8600785	A1	19860213	WO 1985-US1356	19850717
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	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
				US 1984-634932 A	19840727
				US 1985-754092 A	19850715
	AU 8546353	A1	19860225	AU 1985-46353	19850717
	AU 595162	B2	19900329		
				US 1984-634932 A	19840727
				US 1985-754092 A	19850715
				WO 1985-US1356 A	19850717
	EP 190203	A1	19860813	EP 1985-903637	19850717
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	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
				US 1984-634932 A	19840727
				US 1985-754092 A	19850715
	JP 61502814	T2	19861204	JP 1985-503258	19850717

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				US 1984-634932 A 19840727
				US 1985-754092 A 19850715
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				US 1985-754092 A 19850715
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				US 1984-634932 A 19840727
				US 1985-754092 A 19850715
				EP 1985-903637 A 19850717
				WO 1985-US1356 A 19850717
	ZA 8505561	A	19860326	ZA 1985-5561 19850723
				US 1984-634932 A 19840727
	CA 1266991	A1	19900327	CA 1985-487622 19850726
				US 1984-634932 A 19840727
				US 1985-754092 A 19850715
	US 5200427	A	19930406	US 1989-294132 19890109
				US 1984-634932 B219840727
				US 1985-754092 B119850715
				US 1986-895529 A219860811
				US 1988-144883 B219880113
	US 5300526	A	19940405	US 1991-795367 19911120
				US 1984-634932 B219840727
				US 1985-754092 B119850715
				US 1986-895529 A219860811
				US 1988-144883 B219880113
				US 1989-294132 A319890109

FAN 1990:493312

	PATENT NO.	KIND	DATE	APPLICATION NO. DATE
PI	EP 326835	A1	19890809	EP 1989-100605 19890113
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	IL 88867	A1	19940530	IL 1989-88867 19890103
				US 1988-144883 A 19880113
	ZA 8900057	A	19900131	ZA 1989-57 19890104
				US 1988-144883 A 19880113
	US 5200427	A	19930406	US 1989-294132 19890109
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				US 1985-754092 B119850715
				US 1986-895529 A219860811
				US 1988-144883 B219880113
	NO 8900138	A	19890714	NO 1989-138 19890112
				US 1988-144883 A 19880113
	DK 8900138	A	19890714	DK 1989-138 19890113
				US 1988-144883 A 19880113
	FI 8900177	A	19890714	FI 1989-177 19890113
				US 1988-144883 A 19880113
	AU 8928498	A1	19890720	AU 1989-28498 19890113
	AU 626533	B2	19920806	
				US 1988-144883 A 19880113

	BR 8900169	A	19890912	BR 1989-169 19890113
				US 1988-144883 A 19880113
	CN 1036688	A	19891101	CN 1989-101403 19890113
				US 1988-144883 A 19880113
	HU 50179	A2	19891228	HU 1989-131 19890113
				US 1988-144883 A 19880113
	JP 02138201	A2	19900528	JP 1989-7533 19890113
	JP 2866095	B2	19990308	
				US 1988-144883 A 19880113
	DD 283317	A5	19901010	DD 1989-325032 19890113
				US 1988-144883 A 19880113
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				US 1988-144883 A 19880113
				EP 1989-100605 A 19890113
	CA 1338855	A1	19970121	CA 1989-588241 19890113
				US 1988-144883 A 19880113
	US 5300526	A	19940405	US 1991-795367 19911120
				US 1984-634932 B219840727
				US 1985-754092 B119850715
				US 1986-895529 A219860811
				US 1988-144883 B219880113
				US 1989-294132 A319890109

FAN 1994:127807

	PATENT NO.	KIND	DATE	APPLICATION NO. DATE
PI	US 5242892	A	19930907	US 1990-615413 19901119
				US 1984-634932 B219840727
				US 1985-754092 B119850715
				US 1986-895529 A219860811
				US 1990-521119 A219900503
	EP 331211	A2	19890906	EP 1989-106579 19850717
	EP 331211	A3	19891123	
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE			
				US 1984-634932 A 19840727
				US 1985-754092 A 19850715
				EP 1985-903637 P 19850717
	ZA 8505561	A	19860326	ZA 1985-5561 19850723
				US 1984-634932 A 19840727
	US 5127938	A	19920707	US 1986-895529 19860811
				US 1984-634932 B219840727
				US 1985-754092 B119850715
	US 5200427	A	19930406	US 1989-294132 19890109
				US 1984-634932 B219840727
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	US 5163990	A	19921117	US 1990-521119 19900503
				US 1984-634932 B219840727
				US 1985-754092 B119850715
				US 1986-895529 A219860811
	CA 2080140	AA	19911104	CA 1991-2080140 19910502
				US 1990-521119 A 19900503
				US 1990-615413 A 19901119
	WO 9116820	A1	19911114	WO 1991-US3015 19910502
	W: CA, JP, KR			
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE			

			US 1990-521119 A 19900503
			US 1990-615413 A 19901119
EP 527186	A1	19930217	EP 1991-909022 19910502
R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL			
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			US 1990-521119 A 19900503
			US 1990-615413 A 19901119
			WO 1991-US3015 W 19910502
JP 2001151614	A2	20010605	JP 2000-226123 19910502
			US 1990-521119 A 19900503
			US 1990-615413 A 19901119
			JP 1991-508902 A319910502
US 5286708	A	19940215	US 1991-773030 19911008
			US 1984-634932 B219840727
			US 1985-754092 B119850715
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US 5300526	A	19940405	US 1991-795367 19911120
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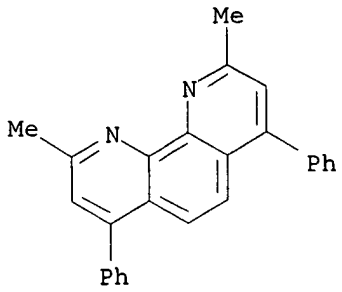
			US 1989-294132 A319890109
US 5321001	A	19940614	US 1992-915896 19920717
			US 1984-634932 B219840727
			US 1985-754092 B119850715
			US 1986-895529 A219860811
			US 1990-521119 A319900503

AB A compn., which induces accumulation of photodynamic tetrapyrroles in the foliage of plants, comprises a chlorophyll biosynthesis modulator , optionally in combination with .delta.-aminolevulinic acid. The compn. is a herbicide, defoliant, or desiccant. An insecticidal compn. which elevates endogenous tetrapyrrole levels in insects, comprises a porphyrin-heme biosynthesis modulator, optionally in combination with .delta.-aminolevulinic acid. Thus, application of a combination contg. 20 mM .delta.-aminolevulinic acid and 15 mM 6-aminonicotinamide (modulator) defoliated tomato.

IT **4733-39-5**
RL: BIOL (Biological study)
(photodynamic chlorophyll biosynthesis modulator, as plant controlling agent)

RN 4733-39-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 27 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1992:187166 CAPLUS
DN 116:187166
TI Spectrophotometric method for determining impurities and their removal from a bath for electrolytic extraction of zinc
IN Hayashibe, Yutaka; Takeya, Minoru; Yamashita, Kazunori; Minami, Mamoru
PA Mitsubishi Materials Corp., Japan
SO Ger. Offen., 7 pp.
CODEN: GWXXBX
DT **Patent**
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 4117665	A1	19911205	DE 1991-4117665	19910529	<--
	DE 4117665	C2	19970717			
				JP 1990-140316	19900530	
	JP 04032764	A2	19920204	JP 1990-140316	19900530	<--
	JP 2836193	B2	19981214			
	JP 10185823	A2	19980714	JP 1997-354824	19900530	<--
				JP 1990-140316	19900530	
	US 5178771	A	19930112	US 1991-705324	19910524	<--
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	AU 9177352	A1	19911205	AU 1991-77352	19910527	<--
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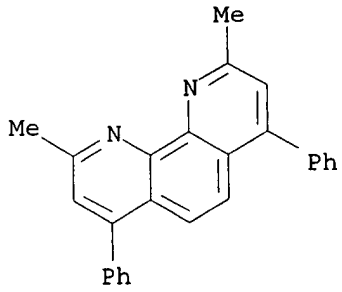
	CA 2043349	AA	19911201	CA 1991-2043349	19910528	<--
	CA 2043349	C	19990420			
				JP 1990-140316	19900530	
	FR 2662709	A1	19911206	FR 1991-6443	19910529	<--
	FR 2662709	B1	19930813			
				JP 1990-140316	19900530	
	GB 2245972	A1	19920115	GB 1991-11653	19910530	<--
	GB 2245972	B2	19940525			
				JP 1990-140316	19900530	

AB Concns. of Co and Cu in a soln. for electrolytic extn. of Zn can at any moment during the extn. be measured by continuous removal of a soln. sample, addn. of a color reagent to the soln. stream, and spectrophotometric anal. As harmful impurities, Co and Cu can be removed continuously and automatically by measuring these concns. according to the above method and by addn. of a pptg. reagent in an amt. calcd. by microcomputer based on the chosen anal.

IT **52698-84-7**
RL: USES (Uses)
(in detn. and removal of impurities, in baths for electrolytic extn. of
zinc, by spectrophotometry)
RN 52698-84-7 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

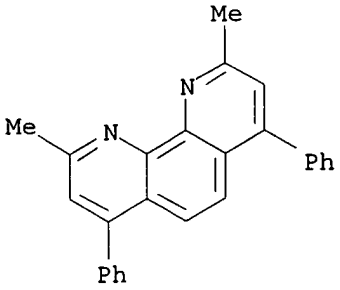
●2 Na

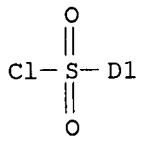
L15 ANSWER 28 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1992:143127 CAPLUS
DN 116:143127
TI Immobilization of redox metal ion chelates
IN Berlin, Peter; Breitfeld, Dagmar; Lehmann, Angelika
PA Akademie der Wissenschaften der DDR, Germany
SO Ger. (East), 5 pp.
CODEN: GEXXA8
DT **Patent**
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 289134	A5	19910418	DD 1989-334623	19891116 <--

AB Immobilized redox metal ion chelates are prepd. for anal. use by coupling a chelating agent with a macromol. and/or protein carrier, treating with a soln. of a redox metal salt to form the redox metalion chelate, and treating with an oxidizing or reducing agent to establish the desired colored initial redox state. Thus, pyrocatechol-3,5-disulfonic acid dichloride is coupled to collagen. The conjugate bound Fe3+ forms a blue-violet color.
IT **139432-50-1D**, reaction products with collagen
RL: ANST (Analytical study); PROC (Process)

(as chelating agents, immobilization of)
RN 139432-50-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, mono(chlorosulfonyl) deriv. (9CI) (CA INDEX NAME)





L15 ANSWER 29 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1990:511987 CAPLUS
DN 113:111987
TI A multiple labeling system for fluorescence immunoassay without concentration quenching
IN Diamandis, Eleftherios P.; Morton, Robert C.
PA Cyberfluor Inc., Can.
SO Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DT **Patent**
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	EP 354847	A2	19900214	EP 1989-402254	19890809	<--
	EP 354847	A3	19910828			
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				CA 1988-574483	19880811	
	CA 1308022	A1	19920929	CA 1988-574483	19880811	<--
	AU 8938153	A1	19900215	AU 1989-38153	19890714	<--
				CA 1988-574483	19880811	
	JP 02088968	A2	19900329	JP 1989-207063	19890811	<--
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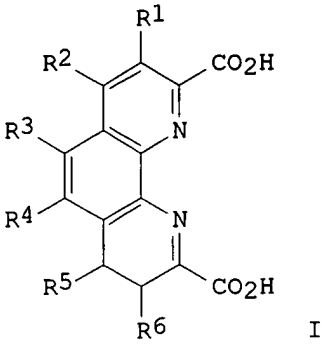
OS MARPAT 113:111987
GI



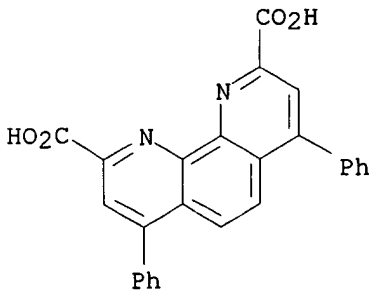
I

AB A carrier particle (protein or synthetic) having .gtoreq.15 amino groups on its surface [thyroglobulin (TG), hemocyanin, etc.] labeled with a plurality of fluorescent reagents (1,10-phenanthroline-2,9-carboxylic acid deriv. I) and conjugated to streptavidin or avidin is used to improve the sensitivity of a specific binding assay. The recognition of streptavidin of the labeled conjugate by biotin on the surface of a biotinylated binder (antigen. antibody, hapten, etc.) which binds to sample analyte is responsible for the binding assay. Further, the streptvadin-conjugated and fluorescence-labeled carrier particle is chelated with lanthanide metal ion (Eu, Tb, Gd, Sm, or Dy) and forms a streptavidin-based macromol. complex (SBMC) with free labeled TG to provide an enhanced sensitivity. Thus, bovine TG was labeled with 4,7-bis(chlorosulfophenyl)-1,10-phenanthroline-2,9-dicarboxylic acid, linked to streptavidin, and the conjugate was combined with Eu3+ and free labeled TG to form SBMC which increased the sensitivity of prolactin detection from 3.14 .mu.g/L with directly labeled streptavidin and 0.50 .mu.g/L with the conjugate of labeled TG and streptavidin to 0.03 .mu.g/L.

IT **102331-59-9D**, derivs., protein conjugates, rare earth chelates
RL: ANST (Analytical study)
(for fluorometric anal.)

RN 102331-59-9 CAPLUS

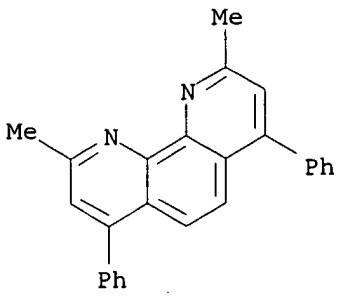
CN 1,10-Phenanthroline-2,9-dicarboxylic acid, 4,7-diphenyl- (9CI) (CA INDEX NAME)



L15 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1990:245320 CAPLUS
DN 112:245320
TI Lithium-selective compositions and electrodes, as well as methods for their use.
IN Daniel, Daniel S.; Delton, Mary H.; Warren, Harold C., III
PA Eastman Kodak Co., USA
SO U.S., 35 pp.
CODEN: USXXAM
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4853090	A	19890801	US 1988-187175	19880428 <--
WO 8910555	A1	19891102	WO 1989-US1480	19890412 <--
W: FI, SU			US 1988-187175	19880428
AU 8933389	A1	19891102	AU 1989-33389	19890426 <--
AU 607325	B2	19910228		
			US 1988-187175	19880428
EP 341859	A1	19891115	EP 1989-304162	19890426 <--
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE			US 1988-187175	19880428
JP 02015079	A2	19900118	JP 1989-104766	19890426 <--
			US 1988-187175	19880428

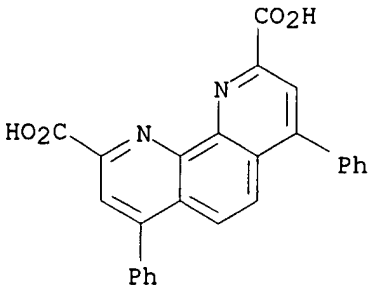
OS MARPAT 112:245320
AB A compn., electrode, and method are useful for the detection of Li ions in an aq. liq., where the Li-selective compn. comprises a lipophilic group-substituted 1,10-phenanthroline, a compd. capable of solvating the phenanthroline, and a supporting matrix. This compn. can be used in a Li-selective electrode as a Li-selective membrane. The electrode can also comprise an internal ref. electrode. Application is indicated for clin. chem., biol. fluids, wastewater, cooling water, groundwater, as well as food and brewery processing fluids.
IT **4733-39-5**
RL: DEV (Device component use); USES (Uses)
(lithium-selective electrodes from)
RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 31 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1989:628595 CAPLUS
DN 111:228595
TI Immunoassay methods using fluorescent lanthanide chelate-labeled reagents and methods for producing the latter
IN Diamandis, Eleftherios P.; Lowden, Alexander J.
PA Cyberfluor Inc., Can.
SO Eur. Pat. Appl., 27 pp.
CODEN: EPXXDW
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 290269	A2	19881109	EP 1988-304116	19880506 <--
EP 290269	A3	19890809		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
			CA 1987-536511	19870506
JP 01047952	A2	19890222	JP 1988-110313	19880506 <--
			CA 1987-536511	19870506
US 5089423	A	19920218	US 1988-190926	19880506 <--
			CA 1987-536511	19870506

AB A fluorescent immunoassay reagent comprises an antigen or antibody labeled with a ligand which forms a stable fluorescent chelate with a lanthanide. A heterogeneous competitive immunofluorometric assay for serum cortisol used (1) Microfluor W plates coated with a cortisol-ovalbumin conjugate and (2) a monoclonal antibody to cortisol conjugated via sulfosuccinimidyl 4-(N-maleimidomethyl)cyclohexane-1-carboxylate to bovine serum albumin which had been labeled with 4,7-bis(chlorosulfophenyl)-1,10-phenanthroline-2,9-dicarboxylic acid. The plate was incubated with analyte-contg. serum and the labeled antibody, washed, exposed to 10-5M Eu3+, washed, dried, and the surface fluorescence of the dry plate was measured. Cortisol was detd. in clear, cloudy, lipemic, and hemolyzed serum samples over the range 1-50 .mu.g/dL with a coeff. of variation of 2-10%; the results showed a good correlation with those obtained with a com. RIA kit.
IT **102331-59-9D**, antibody and antigen conjugates
RL: RCT (Reactant)
(lanthanide chelation by, for FIA)
RN 102331-59-9 CAPLUS
CN 1,10-Phenanthroline-2,9-dicarboxylic acid, 4,7-diphenyl- (9CI) (CA INDEX NAME)



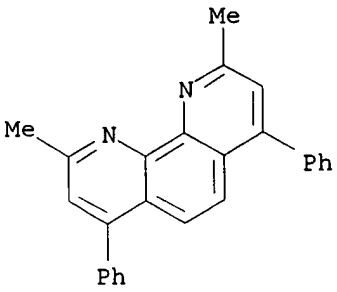
L15 ANSWER 32 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1988:485390 CAPLUS
DN 109:85390
TI Method and test sheets for detection of cyanide
IN Kuwata, Goro; Shimada, Tomoko; Ito, Noboru; Hirano, Susumu
PA Morinaga Confectionary Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 62263465	A2	19871116	JP 1986-107491	19860510 <--

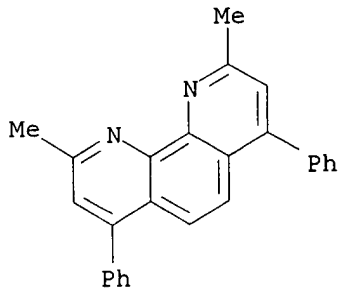
AB The title method uses fading of a metal indicator in reaction with a substance contg. cyanide compd(s). for detection. The metal indicator may be selected from bathocuproine, Na bathocuproine disulfonate, neocuproine, PAN, 2-(5-bromopyridylazo)-5-(N-propyl-N-sulfopropylamino)aniline Na salt, pyrocatechol violet, and Methylthymol Blue. Test sheets are prepd. by addn. of a metal ion soln. to a metal indicator soln. for coloring, addn. of a carrier powder to the mixed soln. pH adjusted, sepn. and drying of the carrier powder having metal indicator adsorbed, and spreading the powder on adhesive surfaces of sheet materials. Thus, SiO2 gel was mixed with a colored soln. from bathocuproine, CuSO4, ascorbic acid, EtOH, and NaOH, and dried. Color of the SiO2 gel faded in a 10 cm3 soln. contg. 5 mg KCN in 2-3 min.

IT **4733-39-5**, Bathocuproine **52698-84-7**, Sodium bathocuproine disulfonate
RL: ANST (Analytical study)
(detection of cyanide by fading of colored indicators from)

RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 52698-84-7 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1-SO_3H]

●2 Na

L15 ANSWER 33 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1987:439640 CAPLUS
DN 107:39640
TI Process for producing 2-methyl-4-phenyl-8-nitroquinoline
IN Gaspar, Istvan; Darvas, Magda; Vaczulin, Jozsef
PA Reanal Finomvegyszergyar, Hung.
SO Hung. Teljes, 5 pp.
CODEN: HUXXBU
DT **Patent**
LA Hungarian
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	HU 38909	A2	19860728	HU 1984-3640	19840926 <--
	HU 192588	B	19870629		

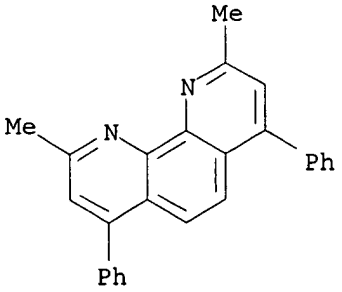
AB The title compd. (I) is prepd. as an intermediate for the synthesis of bathocuproine. Thus, o-nitroaniline in MeOH was treated with H_3AsO_4 and

Ph propenyl ketone. The mixt. was brought to boiling and anhyd. HCl(g) was passed through it for 16 h to give I.

IT **4733-39-5**, Bathocuproine
RL: RCT (Reactant)
(intermediate for, methylphenylnitroquinoline as)

RN 4733-39-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 34 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1986:221655 CAPLUS

DN 104:221655

TI 1,10-Phenanthroline-2,9-dicarboxylic acid and derivatives and their use in fluorescent immunoassay

IN Evangelista, Ramon A.; Pollak, Alfred

PA HSC Research Development Corp., Can.

SO Eur. Pat. Appl., 51 pp.
CODEN: EPXXDW

DT **Patent**

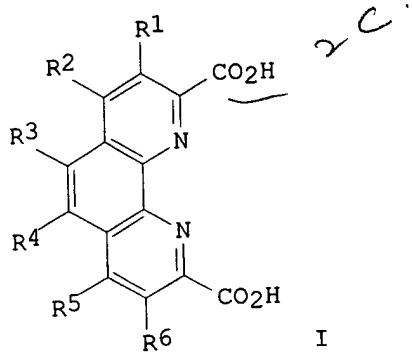
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	EP 171978	A1	19860219	EP 1985-305477	19850731	<--
	EP 171978	B1	19901107			
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE					
				GB 1984-20521	19840813	
				US 1985-708435	19850304	
	AT 58137	E	19901115	AT 1985-305477	19850731	<--
				GB 1984-20521	19840813	
				US 1985-708435	19850304	
				EP 1985-305477	19850731	
	US 4772563	A	19880920	US 1985-763642	19850808	<--
				GB 1984-20521	19840813	
				US 1985-708435	19850304	
	FI 8503090	A	19860214	FI 1985-3090	19850812	<--
				GB 1984-20521	19840813	
				US 1985-708435	19850304	
	CA 1254829	A1	19890530	CA 1985-488513	19850812	<--
				GB 1984-20521	19840813	
				US 1985-708435	19850304	

JP 61200988 A2 19860905 JP 1985-178453 19850813 <--
GB 1984-20521 19840813
US 1985-708435 19850304

GI



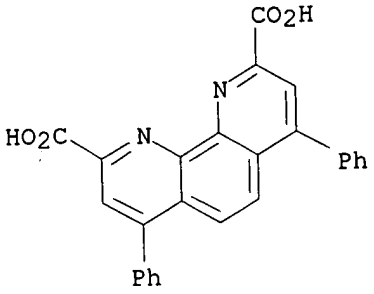
I

AB Title compds. of general structure I [where R1-R6 = H, x(R7)n [X = SO3M (M = metal ion or a functional group which couples covalently with proteins), R7 = divalent C1-12 aliph. residue, divalent C3-12 carbocyclic heterocyclic residue, n = 0 or 1], or R8 (R8 = C1-12 aliph. or C3-12 carbocyclic or heterocyclic group; or .gtoreq.1 pairs of R1-R6 form a C3-12 carbocyclic, heterocyclic, or X-substituted carbocyclic or heterocyclic ring or an o-quinone linkage] coupled to proteins form highly fluorescent chelates in the presence of lanthanide salts, and are useful in fluorescent immunoassay. For example, anti-mouse IgG antibody was coated on polystyrene cuvettes. The coated cuvettes were washed and allowed to stand at 4.degree. overnight with a soln. contg. bovine serum albumin (BSA), NaCl, and NaN3 in Tris buffer. After washing, a soln. contg. bis(chlorosulfonyl)-4,7-diphenyl-1,10-phenanthroline-2,9-dicarboxylic acid-labeled mouse IgG, BSA, Tween 20, NaCl and NaN3 in Tris buffer (pH 7.7) was placed in each cuvette. Each cuvette received a different concn. of labeled mouse IgG (0.2-104 ng/mL). The reaction mixt. was incubated at room temp. for 2 h. After aspiration of the soln. the cuvettes were washed, a carbonate soln. (pH 10) contg. SDS (0.1%) was added to each cuvette, and after 1 h, a soln. contg. EuCl3 and HCl was added. The solns. were mixed and fluorescence was measured. A dose-response relation was obsd. with a detection limit of 10 ng/mL for mouse IgG.

IT **102331-59-9D**, europium complexes **102331-60-2D**, europium complexes
RL: PRP (Properties)
(fluorescence of)

RN 102331-59-9 CAPLUS

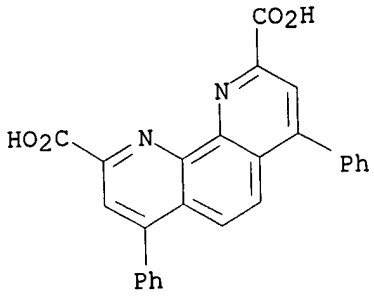
CN 1,10-Phenanthroline-2,9-dicarboxylic acid, 4,7-diphenyl- (9CI) (CA INDEX NAME)



RN 102331-60-2 CAPLUS
CN 1,10-Phenanthroline-2,9-dicarboxylic acid, 4,7-diphenyl-, sulfate (1:2) (9CI) (CA INDEX NAME)

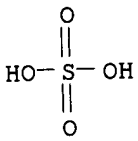
CM 1

CRN 102331-59-9
CMF C26 H16 N2 O4

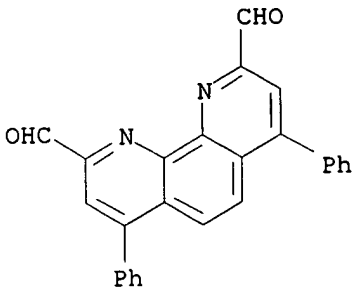


CM 2

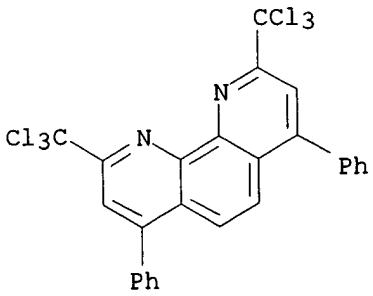
CRN 7664-93-9
CMF H2 O4 S



IT **102331-52-2P 102331-53-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of)
RN 102331-52-2 CAPLUS
CN 1,10-Phenanthroline-2,9-dicarboxaldehyde, 4,7-diphenyl- (9CI) (CA INDEX NAME)



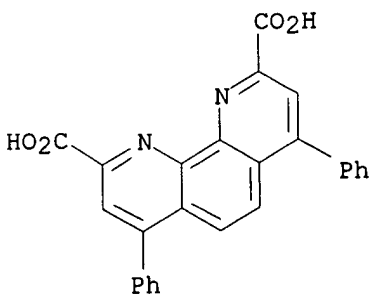
RN 102331-53-3 CAPLUS
CN 1,10-Phenanthroline, 4,7-diphenyl-2,9-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



IT **102331-60-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as fluorescent label for immunoassays)
RN 102331-60-2 CAPLUS
CN 1,10-Phenanthroline-2,9-dicarboxylic acid, 4,7-diphenyl-, sulfate (1:2) (9CI) (CA INDEX NAME)

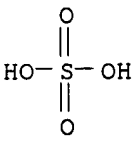
CM 1

CRN 102331-59-9
CMF C26 H16 N2 O4

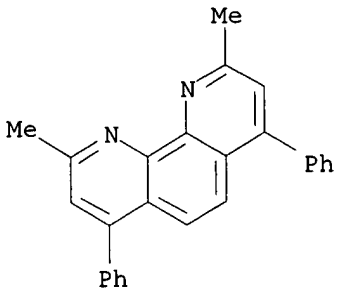


CM 2

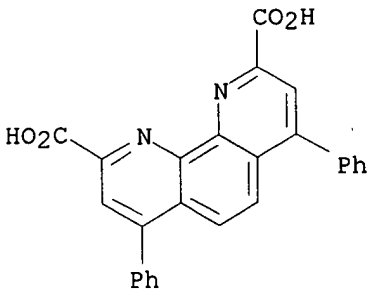
CRN 7664-93-9
CMF H2 O4 S



IT **4733-39-5 102331-59-9**
RL: RCT (Reactant)
(reaction of)
RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 102331-59-9 CAPLUS
CN 1,10-Phenanthroline-2,9-dicarboxylic acid, 4,7-diphenyl- (9CI) (CA INDEX NAME)



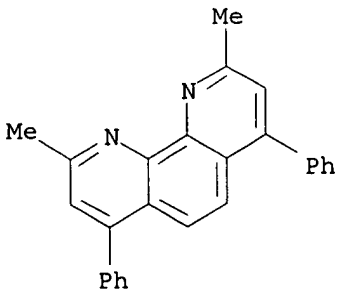
L15 ANSWER 35 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1985:28565 CAPLUS
DN 102:28565
TI Photochemical conversion and storage of light energy by photoisomerization

of compounds such as norbornadiene and its derivatives
IN Giordano, Paul J.; Smierciak, Richard Chester
PA Standard Oil Co. (Ohio) , USA
SO Eur. Pat. Appl., 36 pp.
CODEN: EPXXDW
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 123493	A1	19841031	EP 1984-302581	19840416 <--
EP 123493	B1	19870722		
R: BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
			US 1983-486595	19830419
CA 1251630	A1	19890328	CA 1984-448896	19840306 <--
			US 1983-486595	19830419
JP 59210989	A2	19841129	JP 1984-79298	19840419 <--
			US 1983-486595	19830419

AB A process for the capture and storage of solar energy comprises exposing a photoisomerizable compd. having a high energy d., such as a carboxylate ester of norbornadiene, to solar radiation in the presence of photosensitizer capable of absorbing in the visible portion of the solar spectrum. In a tandem system an increased portion of the solar spectrum is captured by using a plurality of photoisomerizable compds. and nonoverlapping photosensitizers. Thus, a soln. of 0.5 Me norbornadiene-2-carboxylate [3604-36-2] and .apprx.0.05M benzil [134-81-6] photosensitizer was prepd. in CCl4. The soln. was placed in sunlight for 1.5 days. Gas chromatog. and NMR anal. indicated a conversion to the quadricyclane monocarboxylate of 25-35%.

IT **4733-39-5**
RL: USES (Uses)
(photosensitizer, in isomerization of norbornadiene and its derivs.)
RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

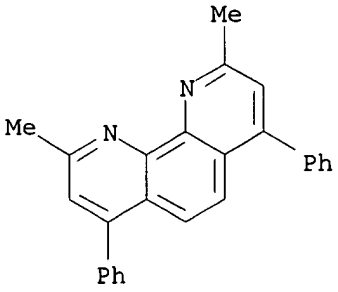


L15 ANSWER 36 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1984:174410 CAPLUS
DN 100:174410
TI Catalytically reducing nitroaromatic compounds
IN Mestroni, Giovanni; Zassinovich, Grazia; Alessio, Enzo

PA Montedison S.p.A. , Italy
SO Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 97592	A2	19840104	EP 1983-401267	19830617 <--
EP 97592	A3	19840725		
EP 97592	B1	19861210		
R: BE, DE, FR, GB, NL				
			IT 1982-21953	19820621
US 4535162	A	19850813	US 1983-504748	19830616 <--
			IT 1982-21953	19820621
JP 59031737	A2	19840220	JP 1983-109468	19830620 <--
			IT 1982-21953	19820621
CA 1227800	A1	19871006	CA 1983-430781	19830620 <--
			IT 1982-21953	19820621

AB Nitroarom. compds. were reduced using CO and H2O or H2 using a catalyst (MLL1L2)X or catalyst system contg. Mm(CO)m1 and L (M = Rh, Ir, Ru, Os; L = chelating bidentate or tridentate arom. N compd.; L1, L2 = CO, olefin; L1L2 = diolefin; X = Cl, Br, iodo, PF6, BF4, BPh4, CO3, HCO3; m, m1 = integers) at 25-250.degree. and 1-150 atm CO. Thus PhNO2 in EtOH-H2O was treated with CO at 30 atm and 165.degree. for 3 h, using a catalyst contg.
Rh6(CO)16 and 1,10-phenanthroline, with a Rh-phenanthroline ratio of 1:10,
to give 91% PhNH2.
IT **4733-39-5**
RL: RCT (Reactant)
(redn. catalyst contg. rhodium and, for nitroarenes)
RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



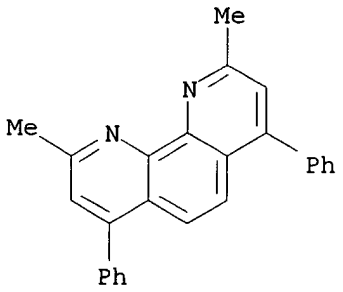
L15 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1981:445376 CAPLUS
DN 95:45376
TI Microcapsulated heavy metal ion adsorbent
PA Agency of Industrial Sciences and Technology, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF
DT **Patent**
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 56026544	A2	19810314	JP 1979-101529	19790809 <--
JP 59004181	B4	19840128		

AB The adsorbent is microcapsules of a porous polymer coated with an oily film contg. a chelating agent and a surfactant. Specific adsorbent to a metal ion is prepd. Thus, a mixt. of 7.5 mL 0.4M piperazine-0.45M Na2CO3 and 7.5 mL H2O at 0.degree. was stirred with 75 mL 5 vol.% sorbitan trioleate in 1:3 CHCl3-cyclohexane for 5 min to emulsify, then with 0.6 g phthaloyl chloride in 75 mL of the solvent for 3 min, centrifuged, and washed 3 times with EtOH. The microcapsule of av. 5 .mu. was stirred in 100 mL C2H4Cl2 contg. 10-3 mol 4,7-diphenyl-2,9-dimethylphenanthroline and 1 g polyoxyethylene sorbitan monolaurate for 10 min and centrifuged. A 10 mL portion (0.4 g) was stirred in 200 mL 10-3M CuSO4 for 23 min to decrease the Cu concn. to .apprx.0.1.

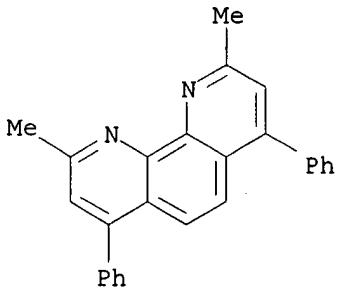
IT **4733-39-5**
RL: USES (Uses)
(coatings contg., on porous microcapsular polymers)
RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 38 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1980:570887 CAPLUS
DN 93:170887
TI Method and test kit for the on-site determination of the presence of contaminant material in lubricating oil
IN Snowden, Esther A.; Snowden, James E., Jr.
PA Contamoil Corp., USA
SO U.S., 9 pp.
CODEN: USXXAM
DT **Patent**
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI US 4203725 A 19800520 US 1978-877371 19780213 <--
AB A kit contg. color reagents was assembled for rapid checking the contamination of lubricating oils with metals during their use and also for detg. the concn. of corrosion inhibitors in the oils. The following color reagents were used (contaminant, reagent given): Fe, .alpha.,.alpha.'-dipyridyl (I) [366-18-7]; Cu, di-Na bathocuproinedisulfonate [**52698-84-7**]; Cr, di-Na chromotropic acid salt [129-96-4]; Sn, ammonium molybdate; Ni, di-Na dimethylglyoxime salt [60908-54-5] and ammonium tartrate [3164-29-2] (to complex interfering metal oxides) ; corrosion inhibitors, methyl orange [547-58-0]-thymol blue [76-61-9] mixt. Thus the detn. of Fe particle concn. involved shaking an oil sample with equal vol. of H2O contg. I 2 and NH2OH.HCl 6.0 g/L, and detg. the color intensity of the aq. phase at 520-22 nm by comparison with stds.
IT **52698-84-7**
RL: USES (Uses)
(color reagent, for detn. of copper in lubricating oils)
RN 52698-84-7 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium salt (9CI) (CA INDEX NAME)



2 [D1—SO3H]

●2 Na

L15 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1979:179638 CAPLUS
DN 90:179638
TI Indicator for detecting copper ions
IN Schmitt, Dieter; Stein, Alfred; Baeumer, Wilhelm
PA Merck Patent G.m.b.H., Ger.
SO Ger., 5 pp.
CODEN: GWXXAW
DT **Patent**
LA German
FAN.CNT 3
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	DE 2039242	A	19720210	DE 1970-2039242	19700807 <--
	DE 2039242	B2	19790222		
	DE 2039242	C3	19820708		
	GB 1271209	A	19720419	GB 1970-1271209	19701030 <--
				DE 1970-2039242	19700807
	NL 7016071	A	19720209	NL 1970-16071	19701103 <--
				DE 1970-2039242	19700807
	CH 550403	A	19740614	CH 1970-16479	19701106 <--
				DE 1970-2039242	19700807
	ZA 7007576	A	19710728	ZA 1970-7576	19701109 <--
				DE 1970-2039242	19700807
	IL 35627	A1	19740630	IL 1970-35627	19701111 <--
				DE 1970-2039242	19700807
	SE 368627	B	19740708	SE 1970-15659	19701119 <--
				DE 1970-2039242	19700807
	FR 2101329	A5	19720331	FR 1970-42502	19701126 <--
				DE 1970-2039242	19700807
	CS 151575	P	19731019	CS 1970-8111	19701201 <--
				DE 1970-2039242	19700807
	JP 49035712	B4	19740925	JP 1970-120578	19701228 <--
				DE 1970-2039242	19700807
	US 3748096	A	19730724	US 1971-122543	19710309 <--
				DE 1970-2039242	19700807

PATENT FAMILY INFORMATION:

FAN 1972:94285

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	ZA 7007576	A	19710728	ZA 1970-7576	19701109
				DE 1970-2039242	19700807
	DE 2039242	A	19720210	DE 1970-2039242	19700807
	DE 2039242	B2	19790222		
	DE 2039242	C3	19820708		

FAN 1972:442848

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1271209	A	19720419	GB 1970-1271209	19701030
				DE 1970-2039242	19700807
	DE 2039242	A	19720210	DE 1970-2039242	19700807
	DE 2039242	B2	19790222		
	DE 2039242	C3	19820708		

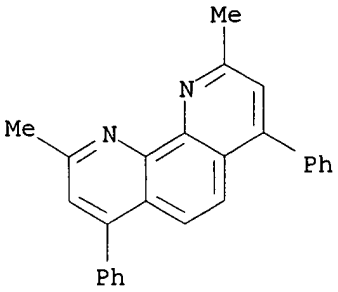
AB Indicators for the detection and semiquant. detn. of Cu ions consist of filter paper bands impregnated with solns. contg. a reducing agent, such as hydroxylamine hydrochloride (I) and (or) ascorbic acid, to reduce Cu2+ to Cu+; a color-forming complexing agent; buffer substance; and an emulsifier and (or) wetting agent derived from polyoxyalkylenes. The filter paper is first dipped in an aq. soln. contg. I, ascorbic acid, weak org. acid and (or) weak inorg. acid, an alkali salt of the acid, and a few mL NaOH or KOH. The paper is dried and dipped in a second org. soln. contg. a complexing agent, such as cuproine, neocuproine, or bathocuproine or their Na salts and the emulsifier and (or) wetting agent. By dipping the indicator paper into the sample soln., a purple color is developed in 10-15 s indicating the presence of Cu. The color is compared with stds.

for the semiquant. detn. of Cu. The indicator can be used over a wide range of pH. The max. color is developed in a very short time. The indicator is selective to Cu; the tolerance limits for various ions are given.

IT **4733-39-5**
RL: USES (Uses)
(in paper indicator for detection and semiquant. detn. of copper)

RN 4733-39-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1977:51560 CAPLUS

DN 86:51560

TI Preventing microbial contamination of organic liquids

IN Juda, Robert H.; Hyde, Gene A.; Ardis, Alan E.

PA Olin Corp., USA

SO Ger. Offen., 21 pp.
CODEN: GWXXBX

DT **Patent**

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 2607653	A1	19760909	DE 1976-2607653	19760225	<--
				US 1975-553705	19750227	
	US 3951833	A	19760420	US 1975-553705	19750227	<--

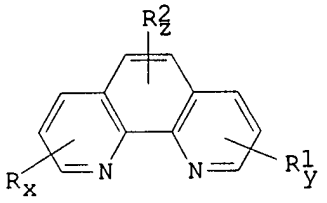
PATENT FAMILY INFORMATION:

FAN 1980:166262

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3951833	A	19760420	US 1975-553705	19750227
	CA 1041009	A1	19781024	CA 1975-242398	19751223
				US 1975-553705	19750227
	FR 2302334	A1	19760924	FR 1976-2331	19760128
	FR 2302334	B1	19810807		
				US 1975-553705	19750227
	DE 2607653	A1	19760909	DE 1976-2607653	19760225
				US 1975-553705	19750227
	JP 51142005	A2	19761207	JP 1976-20546	19760226
				US 1975-553705	19750227
	GB 1501051	A	19780215	GB 1976-7659	19760226

			US 1975-553705	19750227
SE 7602862	A	19760830	SE 1976-2862	19760227
SE 427079	B	19830307		
SE 427079	C	19830616		
			US 1975-553705	19750227

GI



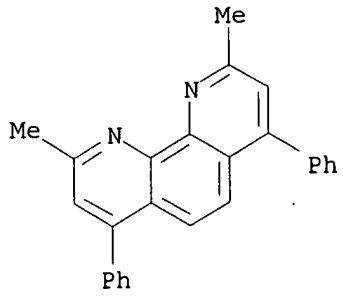
I

AB Substituted 1,10-phenanthroline (I; R and R1 = lower alkyl; R2 = lower alkyl, Ph, NO2, oxo, or halogen; x, y, and z = 0-2) are microbicides for industrial liqs. (e.g., hydraulic fluids, metal-cutting fluids, diesel oil, jet fuel, heating oil, etc.). The min. inhibitory concn. is 100-1500 ppm. Thus, 5-methyl-1,10-phenanthroline [3002-78-6] at 250 and 500 ppm was superior to various com. biocides for preventing microbial growth in several cutting fluids.

IT **4733-39-5**
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(bactericide, for industrial fluids)

RN 4733-39-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 41 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1973:450613 CAPLUS

DN 79:50613

TI Indicator for quantitative analysis of solutions

IN Bittner, Donald L.

SO Ger., 13 pp.

CODEN: GWXXAW
DT **Patent**
LA German
FAN.CNT 1

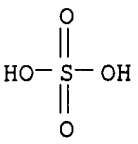
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 1598135	A	19701203	DE 1966-B88938	19660916 <--
DE 1598135	B2	19730315		
DE 1598135	C3	19731004		

AB An indicator for the detn. of reducing substances, such as glucose, in blood is obtained by adding a Cu salt to a water-sol. salt of 2,2-biquinoline(cuproin) or a 2,9-substituted 1,10-phenanthroline (neocuproin or bathocuproin). Thus, 15 mg CuSO4.cntdot.5H2O was added to 50 ml of a soln. contg. 100 mg neocuproin-HCl. Five ml of this indicator was added to 95 ml 1% aq. Na2CO3. One ml sample (e.g., a 1:200 Somogyi filtrate) and 6 ml indicator were mixed in a test tube, heated for 2.5 min in boiling water, and then cooled to room temp. The absorption was detd. at 454 m.mu.. Methods for the detn. of urea creatinine, and ascorbic acid are given.

IT **42908-21-4**
RL: ANST (Analytical study)
(in blood analytical reagent, for reducing substances)
RN 42908-21-4 CAPLUS
CN Sulfuric acid, monosodium salt, compd. with 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline (9CI) (CA INDEX NAME)

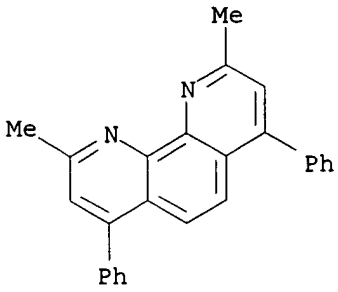
CM 1

CRN 7664-93-9
CMF H2 O4 S



CM 2

CRN 4733-39-5
CMF C26 H20 N2



L15 ANSWER 42 OF 44 CAPLUS COPYRIGHT 2001 ACS
AN 1972:442848 CAPLUS
DN 77:42848
TI Indicators for the detection of copper ions
PA Merck Patent G.m.b.H.
SO Brit., 5 pp.
CODEN: BRXXAA
DT **Patent**
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1271209	A	19720419	GB 1970-1271209	19701030 <--
				DE 1970-2039242	19700807
	DE 2039242	A	19720210	DE 1970-2039242	19700807 <--
	DE 2039242	B2	19790222		
	DE 2039242	C3	19820708		

PATENT FAMILY INFORMATION:

FAN 1972:94285

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	ZA 7007576	A	19710728	ZA 1970-7576	19701109
				DE 1970-2039242	19700807
	DE 2039242	A	19720210	DE 1970-2039242	19700807
	DE 2039242	B2	19790222		
	DE 2039242	C3	19820708		

FAN 1979:179638

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2039242	A	19720210	DE 1970-2039242	19700807
	DE 2039242	B2	19790222		
	DE 2039242	C3	19820708		
	GB 1271209	A	19720419	GB 1970-1271209	19701030
				DE 1970-2039242	19700807
	NL 7016071	A	19720209	NL 1970-16071	19701103
				DE 1970-2039242	19700807
	CH 550403	A	19740614	CH 1970-16479	19701106
				DE 1970-2039242	19700807
	ZA 7007576	A	19710728	ZA 1970-7576	19701109
				DE 1970-2039242	19700807
	IL 35627	A1	19740630	IL 1970-35627	19701111
				DE 1970-2039242	19700807
	SE 368627	B	19740708	SE 1970-15659	19701119

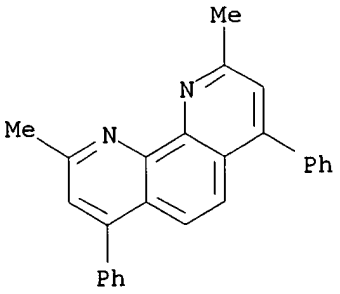
			DE 1970-2039242	19700807
FR 2101329	A5	19720331	FR 1970-42502	19701126
			DE 1970-2039242	19700807
CS 151575	P	19731019	CS 1970-8111	19701201
			DE 1970-2039242	19700807
JP 49035712	B4	19740925	JP 1970-120578	19701228
			DE 1970-2039242	19700807
US 3748096	A	19730724	US 1971-122543	19710309
			DE 1970-2039242	19700807

AB Cu is detected and detd. with a test paper impregnated with a Cu(I)-complexing agent, NH2OH.HCl and/or ascorbic acid to reduce Cu(II) to Cu(I), a 0.01M buffer soln. to maintain the paper at pH 2-3, and an emulsifier and/or wetting agent produced from ethylene oxide and/or propylene oxide. The complexing agent is cuproine, neocuproine, bathocuproine, or the disodium salt of bathocuproinesulfonic acid. The Cu(I) concn. is linearly related to the resulting color intensity on the test paper.

IT **4733-39-5**
RL: ANST (Analytical study)
(indicator, in detection of copper)

RN 4733-39-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 43 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1971:543459 CAPLUS

DN 75:143459

TI Electroless copper plating bath

IN Hirohata, Heigo; Oida, Masahiro; Honjo, Katsuhiko

PA Matsushita Electric Industrial Co., Ltd.

SO Japan., 3 pp.
CODEN: JAXXAD

DT **Patent**

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 46002161	B4	19710120	JP	19681129 <--

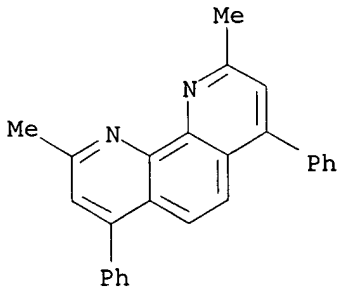
AB The bending strength of a Cu-plated substrate was increased by adding 0.01M 2,2'-bipyridyl into an electroless Cu plating bath contg. CuSO4 0.03, EDTA (or Rochelle salt) 0.035, NaOH 0.23, and HCHO 0.15M. The

2,2'-bipyridyl can be replaced by neocuproine, 2-(2-pyridyl)benzimidazole, or bathocuproine.

IT **4733-39-5**
RL: USES (Uses)
(in coating with copper)

RN 4733-39-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L15 ANSWER 44 OF 44 CAPLUS COPYRIGHT 2001 ACS

AN 1971:48059 CAPLUS

DN 74:48059

TI Light sensitive photographic recording material containing a silver halide emulsion and a layer of phenanthroline as an antifogging agent

IN Matsui, Kazuo; Yamamoto, Toshihiko; Sugita, Sadao

PA Konishiroku Photo Industry Co., Ltd.

SO Ger. Offen., 18 pp.
CODEN: GWXXBX

DT **Patent**

LA German

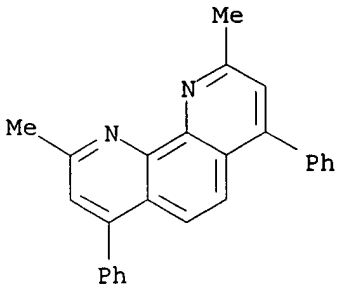
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2013619	A	19701001	DE 1970-2013619	19700321 <--
				JP 1969-22051	19690325
	JP 48032367	B4	19731005	JP 1969-22051	19690325 <--
	GB 1249077	A	19711006	GB 1970-1249077	19700324 <--
				JP 1969-22051	19690325
	US 3615619	A	19711026	US 1970-23998	19700330 <--
				JP 1969-22051	19690325

AB Ag halide emulsions stabilized with a hydroxytriazolopyrimidine compd. develop less fog, particularly at elevated temps., if they contain per l. 10-1000 mg 4,5-phenanthroline (I) or a deriv. of it. The compds. may also be added to other layers of the material. Thus, the fog in a Ag(Br, I) emulsion with magenta color former, developed for 6 min at 25.degree., was reduced from 0.16 to 0.05 by the presence of 120 mg I/l.

IT **4733-39-5**
RL: USES (Uses)

(photographic fog inhibitor)
RN 4733-39-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	230.62	405.12

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-25.87	-25.87

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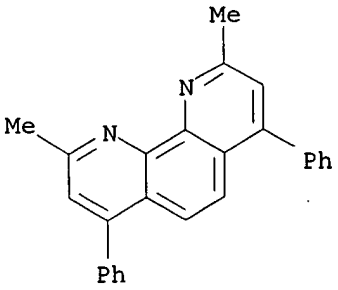
E3	1 -->	4733-39-5/RN
E4	1	4733-40-8/RN
E5	1	4733-41-9/RN
E6	1	4733-44-2/RN
E7	1	4733-45-3/RN
E8	1	4733-46-4/RN
E9	1	4733-47-5/RN
E10	1	4733-48-6/RN

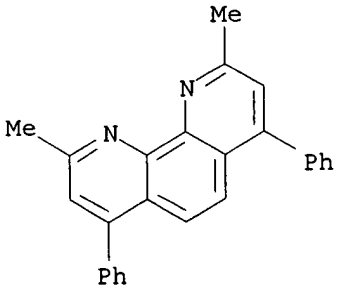
L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv. (9CI)
MF C26 H20 N2 O6 S2
CI IDS, COM



2 [D1—SO_3H]

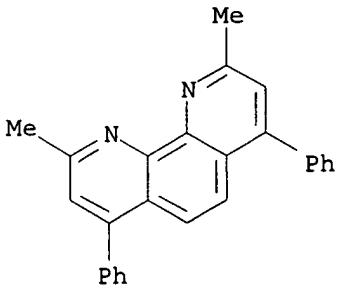
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):29

L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, radical ion(1-) (9CI)
MF C26 H20 N2
CI COM, RIS

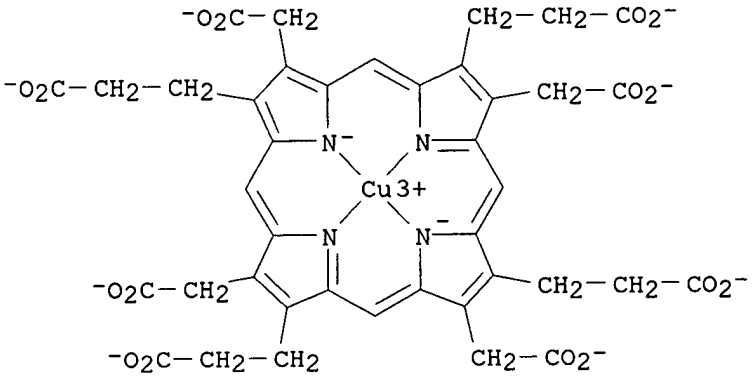


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN Cuprate(7-),
[3,8,13,18-tetrakis(carboxymethyl)-21H,23H-porphine-2,7,12,17-
tetrapropanoato(10-)-N21,N22,N23,N24]-, (SP-4-1)-, octahydrogen, salt
with
2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline (1:1) (9CI)
MF C40 H28 Cu N4 O16 . C26 H20 N2 . 8 H

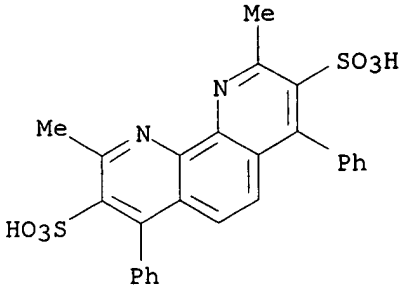
CM 1



CM 2

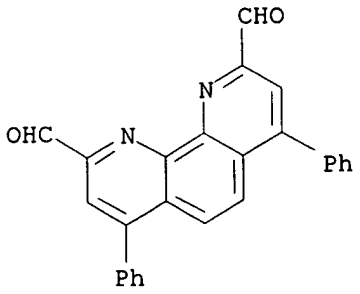


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline-3,8-disulfonic acid, 2,9-dimethyl-4,7-diphenyl- (9CI)
MF C26 H20 N2 O6 S2
CI COM

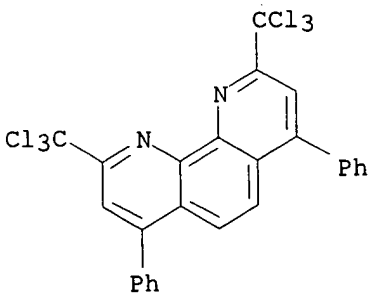


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS

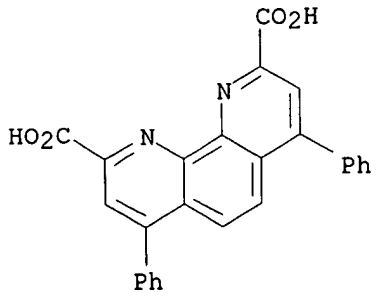
IN 1,10-Phenanthroline-2,9-dicarboxaldehyde, 4,7-diphenyl- (9CI)
MF C26 H16 N2 O2



L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 4,7-diphenyl-2,9-bis(trichloromethyl)- (9CI)
MF C26 H14 Cl6 N2

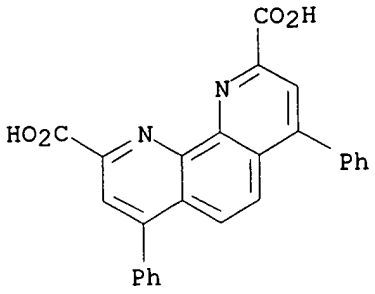


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline-2,9-dicarboxylic acid, 4,7-diphenyl- (9CI)
MF C26 H16 N2 O4
CI COM



L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline-2,9-dicarboxylic acid, 4,7-diphenyl-, sulfate (1:2) (9CI)
MF C26 H16 N2 O4 . 2 H2 O4 S

CM 1



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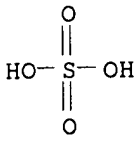
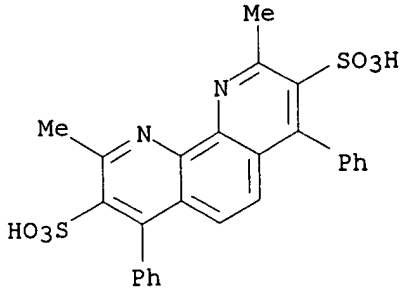


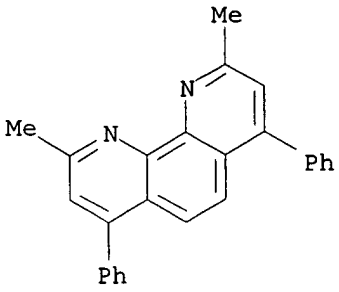
L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline-3,8-disulfonic acid, 2,9-dimethyl-4,7-diphenyl-, disodium salt (9CI)
MF C26 H20 N2 O6 S2 . 2 Na



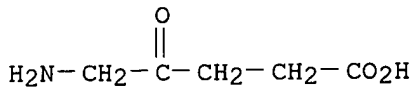
2 Na

L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN Pentanoic acid, 5-amino-4-oxo-, mixt. with 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline (9CI)
MF C26 H20 N2 . C5 H9 N O3
CI MXS

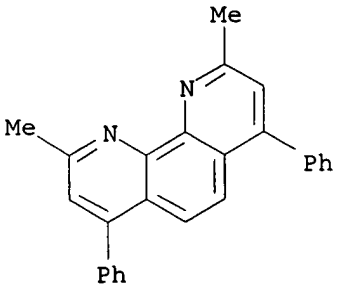
CM 1

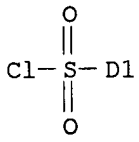


CM 2

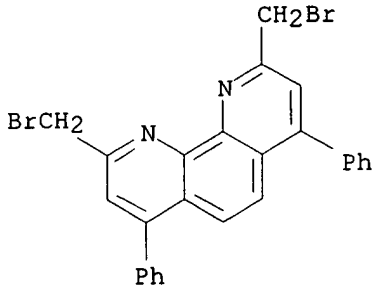


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, mono(chlorosulfonyl) deriv. (9CI)
MF C26 H19 Cl N2 O2 S
CI IDS

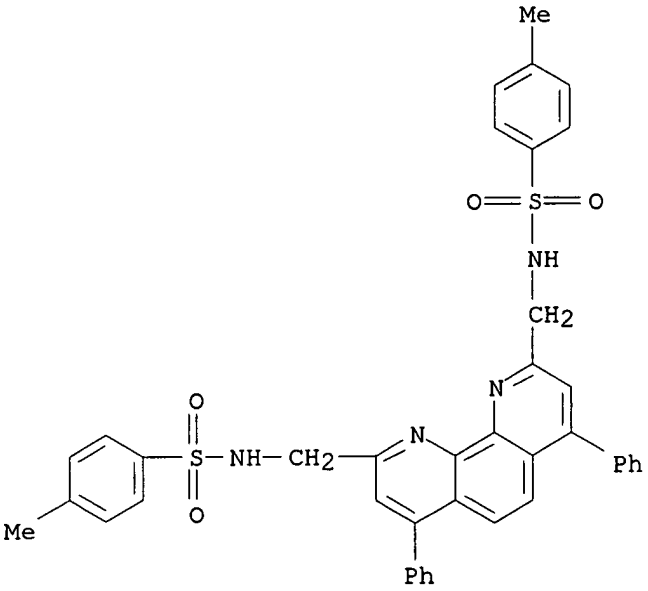




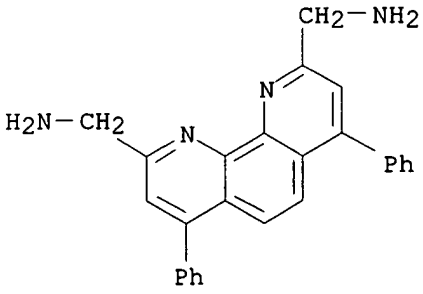
L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-bis(bromomethyl)-4,7-diphenyl- (9CI)
MF C26 H18 Br2 N2



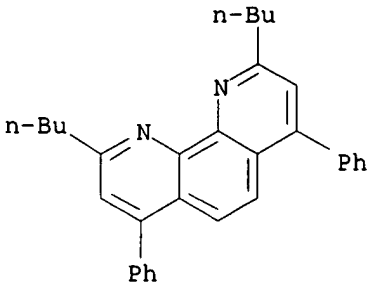
L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN Benzenesulfonamide, N,N'-[(4,7-diphenyl-1,10-phenanthroline-2,9-diyl)bis(methylene)]bis[4-methyl- (9CI)
MF C40 H34 N4 O4 S2



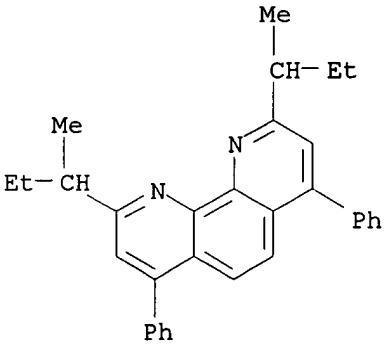
L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline-2,9-dimethanamine, 4,7-diphenyl- (9CI)
MF C26 H22 N4



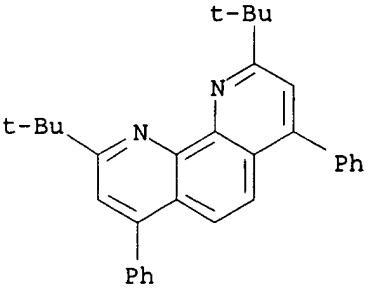
L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-dibutyl-4,7-diphenyl- (9CI)
MF C32 H32 N2



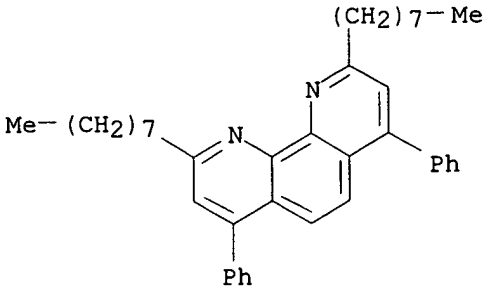
L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-bis(1-methylpropyl)-4,7-diphenyl- (9CI)
MF C32 H32 N2



L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-bis(1,1-dimethylethyl)-4,7-diphenyl- (9CI)
MF C32 H32 N2

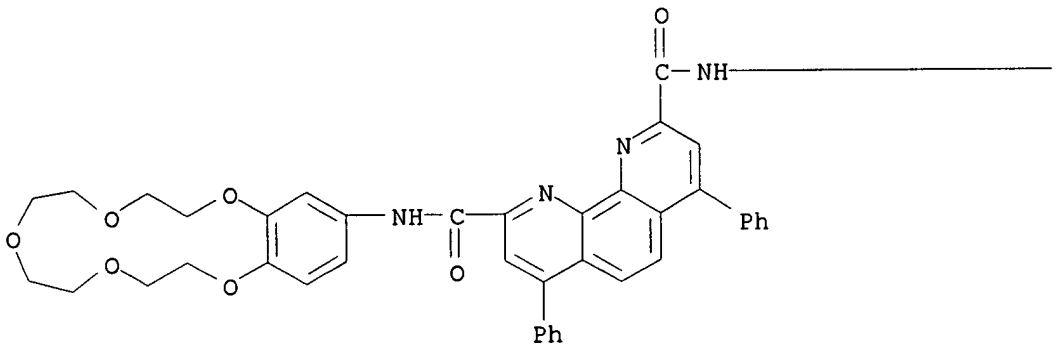


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-dioctyl-4,7-diphenyl- (9CI)
MF C40 H48 N2

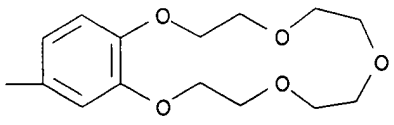


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline-2,9-dicarboxamide, N,N'-bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)-4,7-diphenyl- (9CI)
MF C54 H54 N4 O12

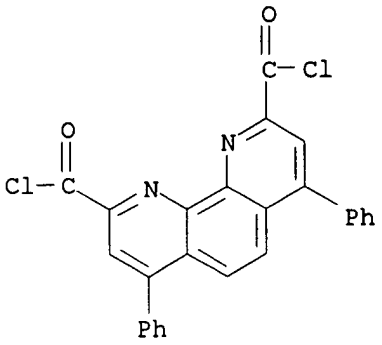
PAGE 1-A



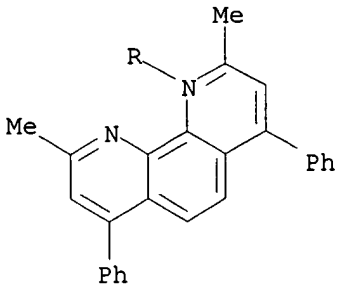
PAGE 1-B

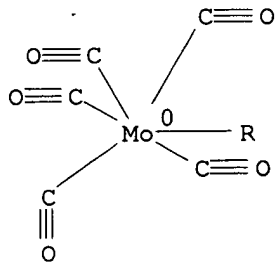


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline-2,9-dicarbonyl dichloride, 4,7-diphenyl- (9CI)
MF C26 H14 Cl2 N2 O2



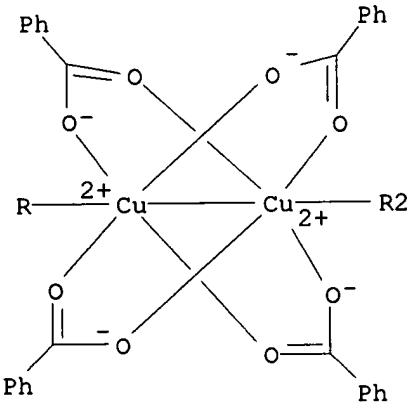
L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN Molybdenum, pentacarbonyl(2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline-N1)-, (OC-6-22)- (9CI)
MF C31 H20 Mo N2 O5
CI CCS



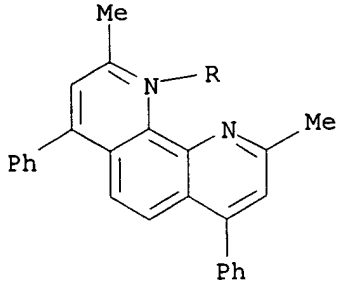


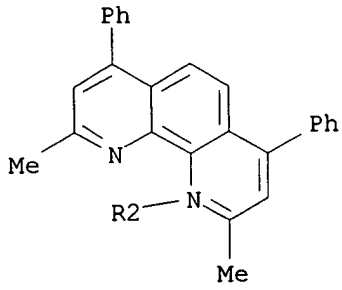
L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN Copper, tetrakis[.mu.-(benzoato-.kappa.O:.kappa.O')]bis(2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline-.kappa.N1)di-, (Cu-Cu) (9CI)
MF C80 H60 Cu2 N4 O8
CI CCS

PAGE 1-A

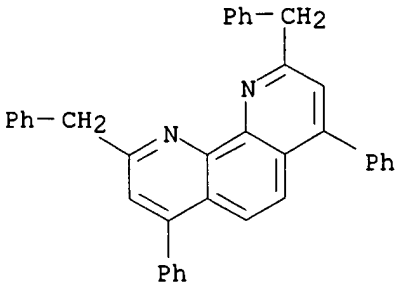


PAGE 2-A

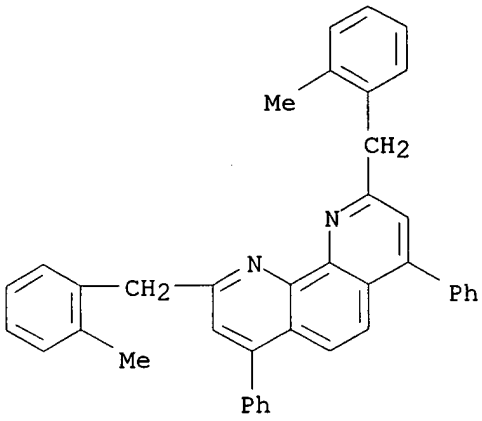




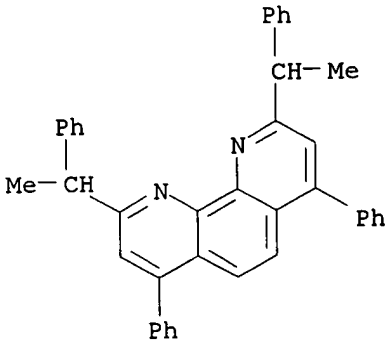
L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 4,7-diphenyl-2,9-bis(phenylmethyl)- (9CI)
MF C38 H28 N2



L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-bis[(2-methylphenyl)methyl]-4,7-diphenyl- (9CI)
MF C40 H32 N2

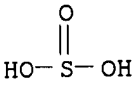


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 4,7-diphenyl-2,9-bis(1-phenylethyl)- (9CI)
MF C40 H32 N2

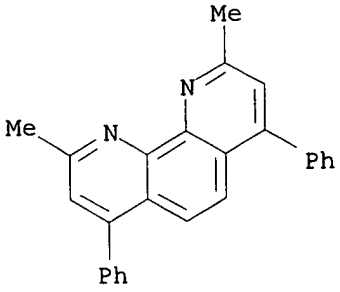


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, sulfite (1:2) (8CI, 9CI)
MF C26 H20 N2 . 2 H2 O3 S

CM 1

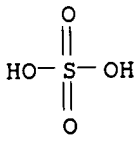


CM 2

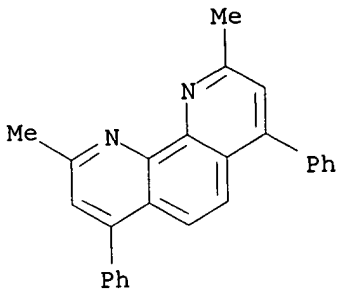


L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN Sulfuric acid, monosodium salt, compd. with 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline (9CI)
MF C26 H20 N2 . x H2 O4 S . x Na

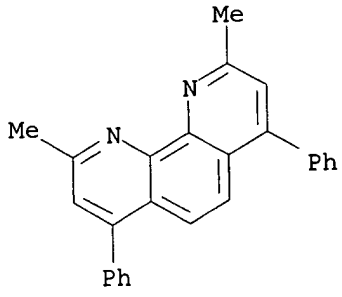
CM 1



CM 2



L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthrolinesulfonic acid, 2,9-dimethyl-4,7-diphenyl-, sodium salt (9CI)
MF C26 H20 N2 O3 S . Na
CI IDS

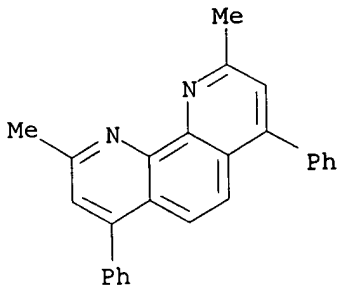


D1—SO_3H

● Na

L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline, 2,9-dimethyl-4,7-diphenyl-, disulfo deriv., disodium

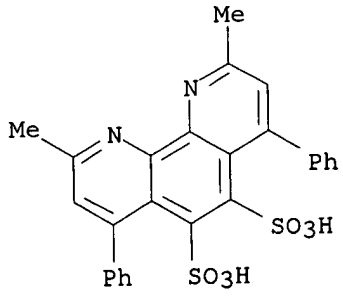
salt (9CI)
MF C26 H20 N2 O6 S2 . 2 Na
CI IDS



2 [D1—SO_3H]

●2 Na

L18 30 ANSWERS REGISTRY COPYRIGHT 2001 ACS
IN 1,10-Phenanthroline-5,6-disulfonic acid, 2,9-dimethyl-4,7-diphenyl-, disodium salt (9CI)
MF C26 H20 N2 O6 S2 . 2 Na



●2 Na

(FILE 'HOME' ENTERED AT 18:33:12 ON 17 JUL 2001)

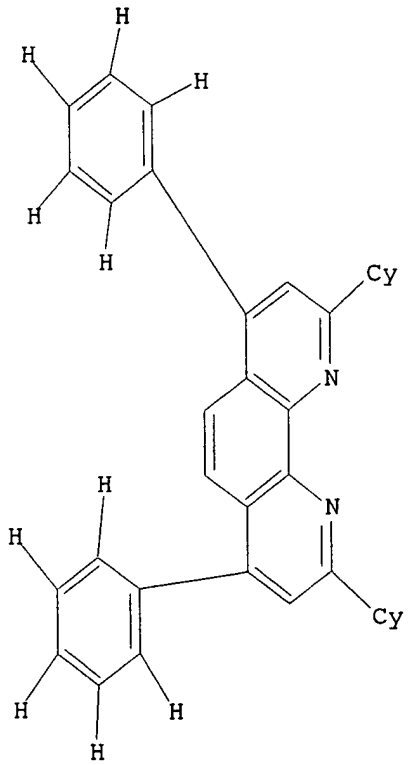
FILE 'REGISTRY' ENTERED AT 18:33:17 ON 17 JUL 2001
L1 STRUCTURE UPLOADED
L2 0 S L1

FILE 'BEILSTEIN' ENTERED AT 18:33:56 ON 17 JUL 2001
L3 1 S L1
L4 3 S L1 SSS FULL

FILE 'REGISTRY' ENTERED AT 18:35:31 ON 17 JUL 2001
L5 11 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 18:36:00 ON 17 JUL 2001
L6 6 S L5

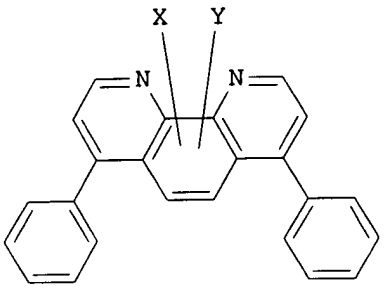
=> d l1
L1 HAS NO ANSWERS
L1 STR



L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 2001:338138 CAPLUS
DN 134:346298
TI Organic electroluminescent device
IN Kijima, Yasunori; Shibanuma, Tetsuo; Asai, Nobutoshi; Tamura, Shinichiro
PA Sony Corporation, Japan
SO Eur. Pat. Appl., 54 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1097981	A2	20010509	EP 2000-123744	20001031
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
				JP 1999-312070 A	19991102
	JP 2001135482	A2	20010518	JP 1999-312070	19991102

OS MARPAT 134:346298
GI

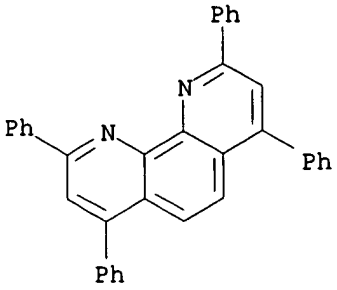


I

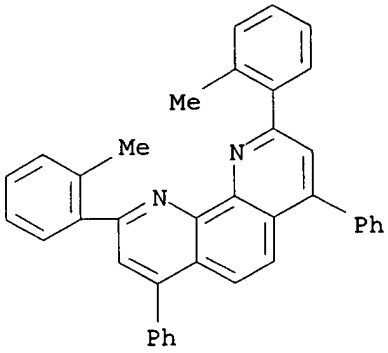
AB Org. electroluminescent devices are described in which a portion (e.g., a hole-blocking layer) contacting the emission region contains a bathophenanthroline deriv. are described by the general formula I (X and Y = independently selected H, (un)substituted alkyl, (un)substituted cycloalkyl, (un)substituted aryl, (un)substituted amino, halogen, nitro, cyano, or hydroxyl groups with the restrictions that a H or Me group may not be provided at the 2 or 9 positions and that at least one of the groups is contained at an arbitrary position).

IT **51786-73-3 338732-41-5 338732-42-6**
RL: DEV (Device component use); USES (Uses)
(org. electroluminescent devices with bathophenanthroline deriv. hole-blocking layers)

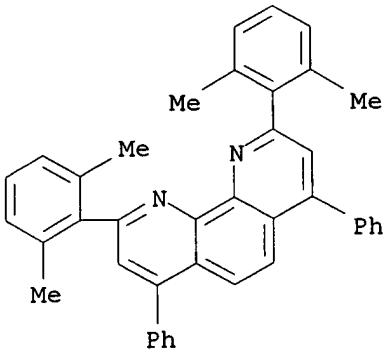
RN 51786-73-3 CAPLUS
CN 1,10-Phenanthroline, 2,4,7,9-tetraphenyl- (9CI) (CA INDEX NAME)



RN 338732-41-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(2-methylphenyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



RN 338732-42-6 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(2,6-dimethylphenyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



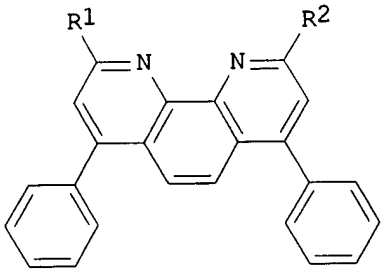
L6 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 2001:338137 CAPLUS
DN 134:346297
TI Bathophenanthroline compound and process for preparing same
IN Shibanuma, Tetsuo; Kijima, Yasunori; Asai, Nobutoshi; Tamura, Shinichiro

09/704968

PA Sony Corporation, Japan
SO Eur. Pat. Appl., 64 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1097980	A2	20010509	EP 2000-123668	20001030
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
			JP 1999-312071 A	19991102
JP 2001131174	A2	20010515	JP 1999-312071	19991102

OS MARPAT 134:346297
GI



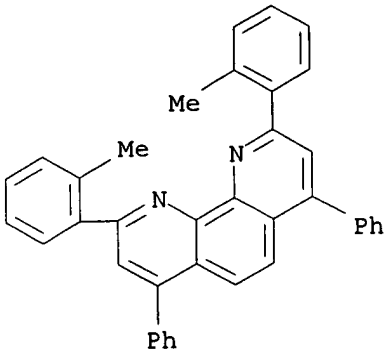
I

this appln

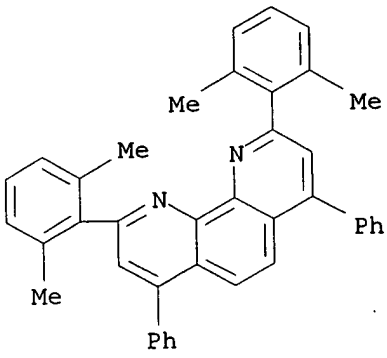
AB Bathophenanthroline compds. are described by the general formula I (R1 and R2 = independently selected linear, branched, or cyclic (un)satd. (un)substituted hydrocarbon groups provided that .gtoreq.1 of R1 and R2 has .gtoreq.2 carbon atoms; or R1 and R2 = independently selected (un)substituted aryl groups). Methods for prepg. the compds. are described which entail carrying out a nucleophilic substitution reaction between bathophenanthroline and an appropriate organolithium compd. The compds. may be used as org. layers (e.g., charge transport layers) in electroluminescent devices.

IT **338732-41-5P 338732-42-6P 338734-79-5P**
338734-80-8P 338734-82-0P 338734-83-1P
338734-86-4P 338734-87-5P
RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)
(bathophenanthroline derivs. and their prepn. and use in electroluminescent devices)

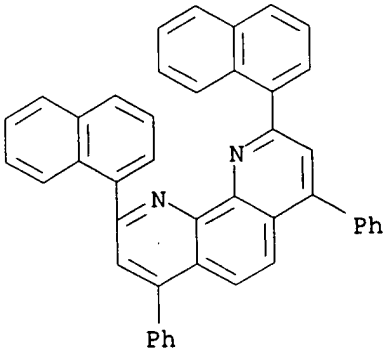
RN 338732-41-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(2-methylphenyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



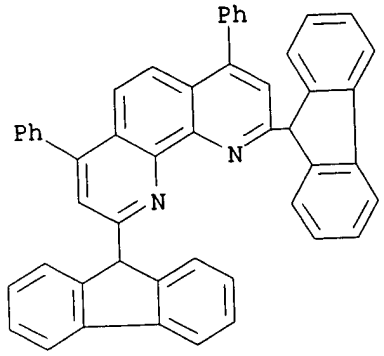
RN 338732-42-6 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(2,6-dimethylphenyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



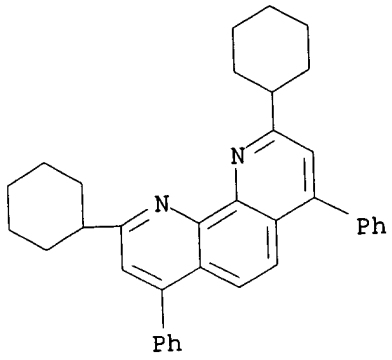
RN 338734-79-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-di-1-naphthalenyl-4,7-diphenyl- (9CI) (CA INDEX NAME)



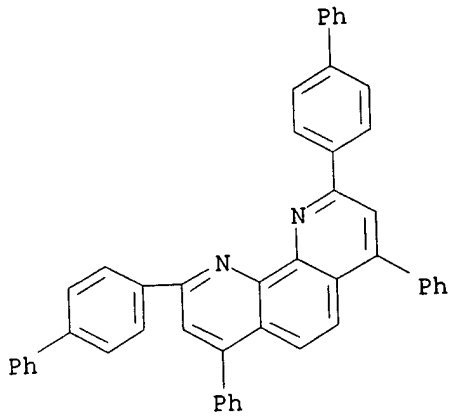
RN 338734-80-8 CAPLUS
CN 1,10-Phenanthroline, 2,9-di-9H-fluoren-9-yl-4,7-diphenyl- (9CI) (CA INDEX NAME)



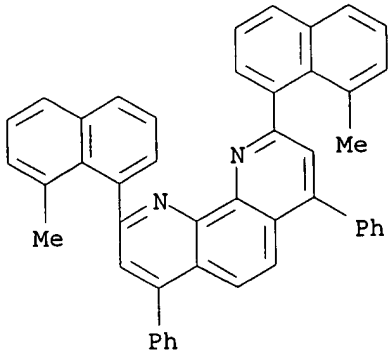
RN 338734-82-0 CAPLUS
CN 1,10-Phenanthroline, 2,9-dicyclohexyl-4,7-diphenyl- (9CI) (CA INDEX NAME)



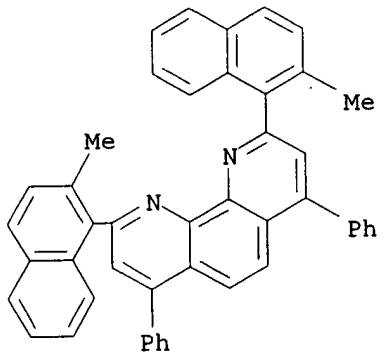
RN 338734-83-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis([1,1'-biphenyl]-4-yl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



RN 338734-86-4 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(8-methyl-1-naphthalenyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



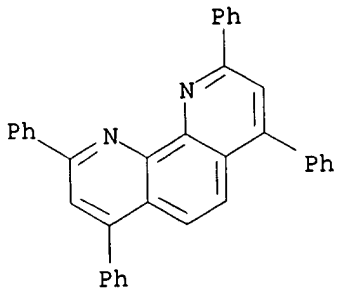
RN 338734-87-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(2-methyl-1-naphthalenyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



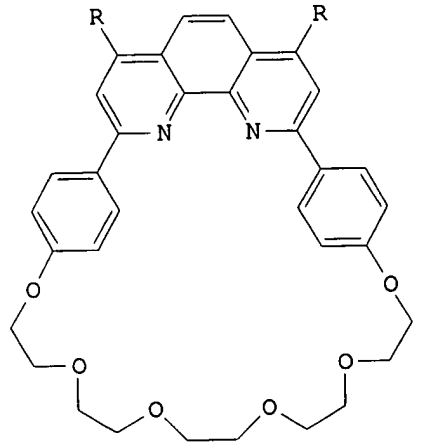
L6 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 1994:22551 CAPLUS
DN 120:22551
TI Lithium ion-selective electrodes based on 1,10-phenanthroline derivatives
AU Sugihara, Hideki; Okada, Tatsuhiro; Hiratani, Kazuhisa
CS Natl. Inst. Mater. Chem. Res., Higashi, 305, Japan
SO Anal. Sci. (1993), 9(5), 593-7
CODEN: ANSCEN; ISSN: 0910-6340
DT Journal
LA English
AB The prepn. of 1,10-phenanthroline derivs. and 4,7-diphenyl-1,10-phenanthroline derivs. as neutral carriers for ion-selective electrodes and the properties of the title electrodes are described in detail. A log KLi,NaPot value of -3.1 was obtained for a Li+-selective PVC membrane electrode based on 2,9-dibutyl-1,10-phenanthroline. This value is superior to those reported so far. The electrodes also showed excellent

selectivity coeffs. for Li+ relative to K+, Mg2+, and Ca2+. The effects of substituents at the 2- and 9-positions of the carriers on the selectivity are discussed.

IT **51786-73-3P**
RL: PREP (Preparation)
(prepn. and NMR and comparison of, as neutral carrier in lithium ion-selective electrode)
RN 51786-73-3 CAPLUS
CN 1,10-Phenanthroline, 2,4,7,9-tetraphenyl- (9CI) (CA INDEX NAME)



L6 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 1987:138422 CAPLUS
DN 106:138422
TI Interlocked macrocyclic ligands: a catenand whose rotation of one ring into the other is precluded by bulky substituents
AU Dietrich-Buchecker, C. O.; Sauvage, J. P.; Weiss, J.
CS Lab. Chim. Organo-Miner., Inst. Chim., Strasbourg, F-67000, Fr.
SO Tetrahedron Lett. (1986), 27(20), 2257-60
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
OS CASREACT 106:138422
GI



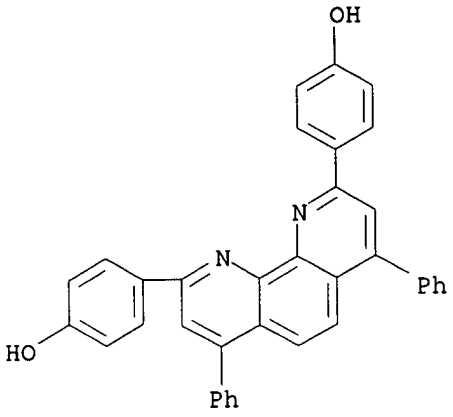
I

AB A new highly rigid catenand has been synthesized. It contains two interlocked rings of I (R = H, Ph) whose reciprocal motions are highly restricted, making the topog. of the copper (I) catenate similar to that of the free ligand.

IT **107428-38-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclocondensation of, with diiodotetraoxatetradecane)

RN 107428-38-6 CAPLUS

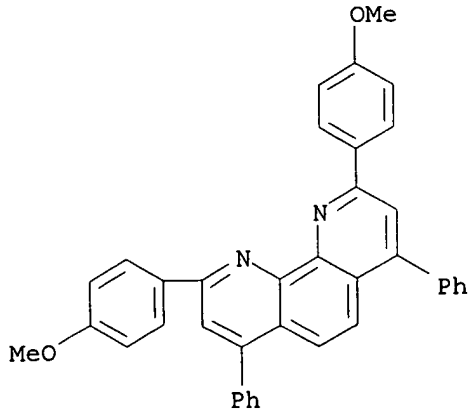
CN Phenol, 4,4'-(4,7-diphenyl-1,10-phenanthroline-2,9-diyl)bis- (9CI) (CA INDEX NAME)



IT **107428-37-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and demethylation of)

RN 107428-37-5 CAPLUS

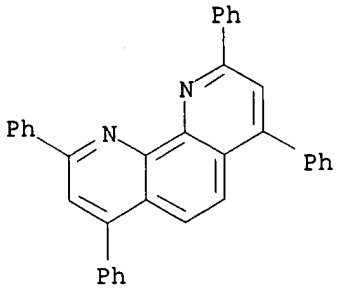
CN 1,10-Phenanthroline, 2,9-bis(4-methoxyphenyl)-4,7-diphenyl- (9CI) (CA INDEX NAME)



L6 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2001 ACS

AN 1983:179244 CAPLUS

DN 98:179244
TI Direct synthesis of disubstituted aromatic polyimine chelates
AU Dietrich-Buchecker, C. O.; Marnot, P. A.; Sauvage, J. P.
CS Inst. Chim., Univ. Louis Pasteur, Strasbourg, 67000, Fr.
SO Tetrahedron Lett. (1982), 23(50), 5291-4
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
AB Treatment of 1,10-phenanthroline with alkyl- or aryllithiums, followed by hydrolysis and rearomatization with MnO2 gave 2,9-disubstituted products in high yield. E.g., treatment of 1,10-phenanthroline with PhLi in 3:1 C6H6/Et2O followed by hydrolysis and MnO2 oxidn. gave 2,9-diphenyl-1,10-phenanthroline in 70% yield. The method was extended to other arom. polyimines, e.g. 2,2'-bipyridine.
IT **51786-73-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by direct regiospecific phenylation)
RN 51786-73-3 CAPLUS
CN 1,10-Phenanthroline, 2,4,7,9-tetraphenyl- (9CI) (CA INDEX NAME)

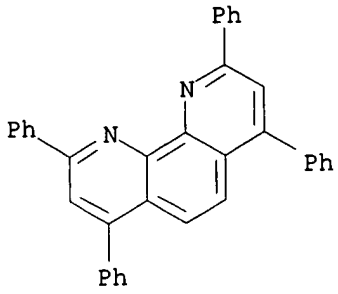


L6 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 1974:95913 CAPLUS
DN 80:95913
TI 1,10-Phenanthroline derivatives
IN Zak, Bohumil
SO Czech., 3 pp.
CODEN: CZXXA9
DT Patent
LA Czech
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CS 150747	B	19730917	CS 1971-3494	19710812

GI For diagram(s), see printed CA Issue.
AB The title compds. I (R1, R3 = H, Me, Ph; R2, R4 = H, Me) were prepd. by condensation of R1CH:CR2COR3 with o-phenylenediamine (II) or 4,5-dimethyl-1,2-phenylenediamine (III). E.g., 1.46 kg II was treated with 4 kg PhCOCH:CHMe in HCl soln. at 90-100.degree. to give 500 g 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline. Analogously, III reacted with MeCH:CHCHO and CH2:CMe(OEt)2 to give, resp., 2,5,6,9-tetramethyl- and
3,5,6,8-tetramethyl-1,10-phenanthroline.

IT **51786-73-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 51786-73-3 CAPLUS
CN 1,10-Phenanthroline, 2,4,7,9-tetraphenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 1 OF 3 COPYRIGHT 2001 BEILSTEIN CDS MDLI

Beilstein Reg. No. (BRN): 4605211 Beilstein
Molecular Formula (MF): C38 H28 N2 O2
Autonom Name (AUN): 2,9-bis-(4-methoxy-phenyl)-4,7-diphenyl-<1,10>phenanthroline
Beilstein Reference (SO): 6-23
CAS Reg. No. (RN): 107428-37-5
Beilstein Pref. RN (BPR): 107428-37-5
Formula Weight (FW): 544.65
Lawson Number (LN): 28534; 289

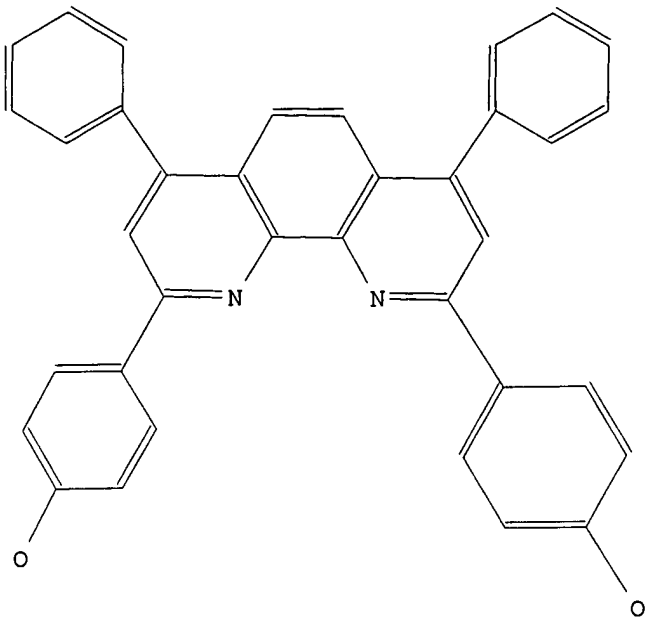
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Preparation:
PRE
Start: BRN=261048 4,7-diphenyl-<1,10>phenanthroline, BRN=3537483 4-methoxy-phenyl lithium
Yield: 80.00 %
Reference(s):
1. Dietrich-Buchecker, C. O.; Sauvage, J. P.; Weiss, J., Tetrahedron Lett., 27 <1986> 20, 2257-2260, LA: EN, CODEN: TELEAY

=> d 2-3 ide pre

L4 ANSWER 2 OF 3 COPYRIGHT 2001 BEILSTEIN CDS MDLI

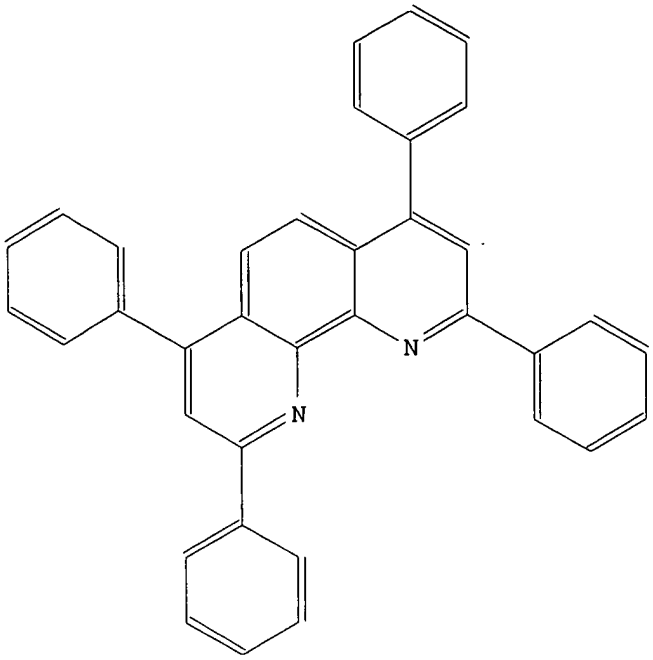
Beilstein Reg. No. (BRN): 4600460 Beilstein
Molecular Formula (MF): C36 H24 N2 O2
Beilstein Reference (SO): 6-23
CAS Reg. No. (RN): 107428-38-6
Beilstein Pref. RN (BPR): 107428-38-6
Formula Weight (FW): 516.60
Lawson Number (LN): 28534



Preparation:
PRE
Start: BRN=4605211 C38H28N2O2
Reag: pyridinium chloride
Yield: 98.00 %
Temp: 200.0 Cel
Reference(s):
1. Dietrich-Buchecker, C. O.; Sauvage, J. P.; Weiss, J., Tetrahedron Lett., 27 <1986> 20, 2257-2260, LA: EN, CODEN: TELEAY

L4 ANSWER 3 OF 3 COPYRIGHT 2001 BEILSTEIN CDS MDLI

Beilstein Reg. No. (BRN):	357410 Beilstein
Molecular Formula (MF):	C36 H24 N2
Chemical Name (CN):	2,4,7,9-tetraphenyl-<1,10>phenanthroline
	2,4,7,9-Tetraphenyl-<1,10>phenanthrolin
Autonom Name (AUN):	2,4,7,9-tetraphenyl-<1,10>phenanthroline
Beilstein Reference (SO):	4-23-00-02218; 6-23
CAS Reg. No. (RN):	51786-73-3
Beilstein Pref. RN (BPR):	51786-73-3
Formula Weight (FW):	484.60
Lawson Number (LN):	28308



Preparation:
PRE
Start: BRN=261048 4,7-diphenyl-<1,10>phenanthroline, BRN=506502 phenyl lithium
Reag: benzene
Detail: Erhitzen des nach der Hydrolyse erhaltenen Reaktionsprodukts mit Nitrobenzol auf 100grad
Reference(s):
1. Case; Sasin, J.Org.Chem., 20 <1955> 1330, 1336, CODEN: JOCEAH
Note(s):
2. Handbook Data

PRE
Start: BRN=261048 4,7-diphenyl-<1,10>phenanthroline, BRN=506502 phenyl lithium
Reference(s):
1. Dietrich-Buchecker, C. O.; Marnot, P. A.; Sauvage, J. P., Tetrahedron Lett., 23 <1982> 50, 5291-5294, LA: EN, CODEN: TELEAY
Note(s):
2. Yield given. Multistep reaction